Lectures
ON
DISEASES OF THE NERVOUS SYSTEM.

Delivered at the Westminster Hospital,

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LECTURE IV.

GENTLEMEN,—The effects of chronic lead-poisoning upon the nervous system begin, as I have said, at the periphery; and the first affected place is very generally the intestines. Sometimes the symptoms arise suddenly, but often there is a period in which the patient feels unwell and exhibits constitutional disturbance. The complexion is sallow; there is a sweetish, styptic taste in the mouth; the breath is foul; and there is general muscular languor, with occasional griping pains in the belly and some constipation. Upon this there suddenly supervenes intense abdominal twisting pain, chiefly round the navel, perhaps vomiting, and complete obstruction of the bowels in most cases, though occasionally a partial action of the bowels continues. There is usually severe prostration, the pulse is small and tense, but generally not quick; often the pain causes cold perspiration to stand on the face.

When you are called to a patient in such circumstances you would inquire about his history. Even if you did not know that he had been exposed to lead poison, and even if he had not followed any trade directly predisposing to plumbism, you should still look further, because the metal might have entered his system in some less recognisable way. Especially you should examine his gums: lead-poisoning nearly always shows itself by a bluish-purple line next the teeth and encroaching on them; it ceases where there is a gap from a tooth being absent. This sign, when present, is conclusive of the existence of metallic poisoning; and, under the circumstances, lead is much the most probable agent.

In dealing with this condition your first object is to allay the intestinal spasm, without which relief the peristaltic action of the bowel cannot be restored. For this purpose the best remedy you can administer is a draught containing half a drachm of ether and the same quantity of Battley's sedative solution with camphor mixture; this should be followed up by a large warm water enema. The draught may be repeated in an hour's time if necessary, and the enema should be repeated in two or three hours' time if the bowels have not been relieved; it should be thrown high up into the large bowel with a long elastic tube. Continuous hot fomentations should also be applied to the abdomen. By these means you will seldom fail to relieve the spasm and obtain evacuations. But if this does not occur in a few hours it is best to change the plan: you should now administer one-thirtieth of a grain of atropine hypodermically every three hours (for there is often vomiting in these protracted cases), and the constant current should be applied, about forty cells being used, the positive pole being placed on the navel and the negative inserted into the rectum. In this way you will pretty certainly relieve the spasm and obtain action of the bowels.

As soon as the attack of colic is over you must at once direct your attention to the removal of the poison; for lead is one of the few poisons the elimination of which we can directly assist by medicine. Iodide of potassium, in doses of ten increased to twenty grains, three times a day, effects a real elimination of lead by the channel of the urine. It is unnecessary to say anything about the precautions against continued introduction of lead into the system, since these will have been explained in the lecture on Toxicology.

The symptoms of the second grade of chronic nervous lead-poisoning are as follows:—The muscles of the ball of the thumb are observed to become weak; sometimes they waste considerably before any further marked symptoms occur. To this follows a weakness of the extensors of the wrist, in consequence of which the hand cannot be freely bent back on the forearm. This generally progresses rapidly till the hand is helplessly dropped; and by this time there is usually great wasting of the fleshy mass on the back of the forearm. The supinators are usually also wasted and weakened, so that the patient cannot roll his hand outwards when resting the arm on the table. These affections of the muscles are commonly symmetrical, both arms being pretty equally affected. In some, but less frequent, instances the wasting and weakness affect also the muscles of the upper arm and shoulder. As a rule, sensation is but little or not at all affected. In extreme cases the affected muscles waste almost entirely away; in such instances the interosseous muscles of the hand also atrophy, and the peculiar *main en griffe*, more commonly seen in some other nervous diseases, is produced.

Now, for this condition we possess a singularly limited range of remedies. Our first efforts must be directed to the elimination of the poison, for which we must give iodide of potassium in the manner already described; at the same time we must order a highly nourishing diet and cod-liver oil in pretty free doses. The circulation in the affected muscles must be encouraged by prolonged and frequent frictions of the skin. If, however, these means do not very soon induce some recovery of power, we must not waste time, because there is danger of the atrophy reaching an irremediable degree. We must therefore at once commence electrical treatment; and, fortunately, in this we possess a most powerful remedy. In the first instance we should always try the induced current; both poles should be placed pretty near together upon the affected muscles, each group being electrified for three or four minutes consecutively daily. Where the wasting has not gone very far the current usually excites contractions; but if after a few days' use we get no response to faradism, it is better to try the constant current. About forty cells will usually provoke contractions except in cases where wasting has reached a hopeless degree; and after a few days or a week or two of this treatment we commonly find that irritability to the induced current returns; the cure may then be completed by faradism.

As an illustration of the extraordinary benefits sometimes caused by electricity I may mention a case that some of you may remember. In 1870 a man* aged thirty-two came to the out-patient department here, almost the whole of whose muscles of the right hand, forearm, upper arm and shoulder were atrophied to an extreme degree. The disease was singular in being confined to one limb; this was because the poison had been taken in only through the right hand, which constantly dabbled in the lead paints that he used in his trade. Here the constant current was used daily for eight weeks; faradaic irritability then returned, and in another month of treatment with the latter both the power and the bulk of the muscles were almost completely restored.

The third grade of nervous poisoning with lead represents that more profound influence of the poison in which the central nervous system is engaged. Most commonly it has been preceded by one or both of the stages already described. Usually it is announced by the occurrence of epileptiform fits: these may either recur a number of times with intervals of comparative health, or the patient may almost immediately pass into a state of coma, from which recovery is very rare. It should be mentioned that this comatose condition is sometimes the precursor of death after an unusually severe attack of colic. There is generally very little to be done in the way of treatment when once the patient has entered on this stage of plumbism; but so long as he can be kept from actual coma it is always worth while to persist in the use of iodide of potassium and cod-liver oil; a rather free use of alcohol is also advisable. As a subordinate measure, both for preserving the action of the skin and rousing the vigour of the nervous system, it is very useful to employ daily frictions to the general surface of the body. Constipation, where troublesome, should be met by the persistent use of the constant current in the manner already described.

4. Mercurialism is practically a much less important form

* This man was shown to the Clinical Society; and the complete history of his case is in vol. iii., Clin. Soc. Trans.

of chronic nervous poisoning than either of the two preceding, from its much less frequency at the present day. Most of the trades which formerly caused mercurialism in the men engaged in them are now so regulated that poisoning is seldom produced, and the old custom of wholesale *medical* mercurialisation is entirely relinquished.

The most typical form of the disease used to be seen in water-gilders, mirror-silverers, and the workmen in mercury mines and smelting works; these persons were affected especially with muscular tremor. There was first mere unsteadiness of the arms, gradually increasing until there was muscular tremor so violent and persistent as to shake the whole body and to interfere with all co-ordinated voluntary movements. This is the first degree of the nervous disorder, and is usually curable if taken in time. It is a curious fact, observed by Mérat, that workmen who were severely afflicted with tremor usually escaped salivation.

Where, however, the patients thus affected continue to be exposed to the influence of mercury, the disease quickly invades the nervous centres, and evidently affects the cortical grey matter of the brain, inducing insomnia, delirium resembling that of delirium tremens, and death from asthenia. Such cases were common enough in old days, in the mercury mines of Almaden; the last case of the sort which I remember to have heard of occurred some years ago in a London workman whose trade exposed him to breathing the fumes of acid nitrate of mercury. He died of what was supposed at the time to be delirium tremens; the real cause was only subsequently discovered.

Such are the more common or prominent symptoms of slow mercurial poisonings; but there are other occasional phenomena of great interest. The sensory nerves may be engaged; and we shall speak first of the fifth cranial. For this nerve, indeed, mercury has evidently a selective affinity. This is seen both in the pathological changes in eyes, mouth, and nose which may be produced by its poisonous effects, and not less strikingly by its special therapeutical efficacy in diseases of the same territory. Among other occasional consequences of chronic mercurial poisoning must be reckoned attacks of severe and persistent facial neuralgia. Occasionally, however, the painful affections are much more widely spread. In one case, related in my work on Neuralgia, a woman, in consequence of incautious and extreme salivation medically induced when she was young, suffered throughout a long life from repeated attacks of the most violent neuralgic pains in all her limbs. In a second case, a lady, whom I attended, suffered from exceedingly violent neuralgic pains in the left side of the body, with singular inflammatory complications; the commencement of the neuralgia seemed clearly traceable, at least in part, to an excessive salivation many years previously.

The treatment of mercurialism, in any of those early stages in which disease is at all curable, must proceed on exactly similar principles to that of lead-poisoning: we have to eliminate the poison as far as possible, and to endeavour to restore the impaired nutrition of the nervous system. Mercury shares with lead the capacity for partial elimination by means of iodide of potassium, which may be given in the manner already described. Cod-liver oil is even more singularly useful, than in the case of plumbism, in restoring the tone of the nervous system. For example, the woman whose frightful neuralgic sufferings in all the limbs I have described, was always temporarily cured by a somewhat prolonged course of the oil; and its effect in relieving the muscular tremors was remarkably shown in several cases under my care all at once, some years ago, where a group of persons were poisoned by accidental and unconscious inhalation of mercurial fumes.

B. We come now to the second group of unlocalisable nervous diseases. In these the cause is still partly external; but it is evident that much depends on internal spontaneous processes in the nervous centres—processes which for the most part cannot as yet be connected with any characteristic organic change. Under this heading we reckon hypochondriasis; hysteria of the ordinary types; the so-called "spinal irritation"; muscular anæsthesia (and some other but vaguer analogous affections); chorea; writers' cramp; and the convulsions of infancy.

1. Hypochondriasis is perhaps the most puzzling disease with which the physician is acquainted; and it is only of late years that a distinct clue to its real pathological relations has been obtained. It is now obvious that this disorder is intimately related to insanity, but that the relation is one of hereditary descent rather than of immediate pathological connexion. Doubtless some cases of hypochondriasis do shade off into actual madness; but, as a rule, the hypochondriac is a very different person from the true madman. He does, however, almost invariably come of a race in which insanity is frequent; and the case of hypochondriasis affords me the first opportunity of making some general observations on those remarkable transformations of nervous disease which take place in the course of successive generations. The subject is one of unspeakable importance—an importance which has only been at all adequately realised in quite recent years. As I said before, the subject of nervous heredity is too vast to be dealt with fully in these lectures; but we cannot escape its discussion in reference to particular diseases.

I must ask you to accept the dogmatic statement that particular families which are distinguished by the "active hereditary neurosis" exhibit, in successive generations, specimens of various severe nervous diseases: thus, an insane father may perhaps have seven children, of whom one shall be epileptic, another neuralgic, the rest apparently healthy, or only somewhat "eccentric," and so on, with infinite variety of transformations. Now in families where the neurotic tendency frequently assumes the form of true insanity there are sure to be occasional members who display the type of hypochondriasis, and are for the most part very distinct in their characteristics both from the actually mad and from the perfectly sane members of the family.

The outbreak of actual hypochondriasis may or may not be preceded by a period in which, though there is no complaint of bodily ailment, the patient becomes gloomy and reserved, or at least very variable in spirits, and on the whole appears much more wrapped up in himself than formerly. It is nearly always a bodily ailment, however, of which he first makes any direct complaint; and in the large majority of cases this first alleged ailment is a dyspepsia, or some marked degree of pain or other uneasiness over the region of the stomach or of the liver. Very usually, indeed, there are objective symptoms: there are flatulent belchings, and occasionally pyrosis, or else partial regurgitations of food. These and other symptoms gave rise to the ancient view, that the cause of hypochondriasis resided in the abdominal organs; whereas we are now aware that the disease really belongs to the central nervous system.

The effect of the occurrence of localised pain or uneasiness is immediate: the patient at once concentrates all his attention on the organ in which the morbid sensation seems to be seated, and a firm belief that that organ is structurally diseased takes possession of his mind. He is usually quite rational on every other topic—often, indeed, he is a very acute and talented person; but his whole mental life revolves round the fixed belief that he is the subject of organic disease, and no amount of argument will in the least degree shake his opinion. Don't make the very common mistake of supposing that the poor man is not a *real* sufferer: his pains or other abnormal sensations are dreadfully real. Sometimes they take the form of a spurious neuralgia, with intermittences: the pain is very severe, but usually more burning, or boring, than acutely darting.

What gives the malady the final stamp of hypochondriasis is the fact that, sooner or later, and sometimes on several successive occasions, the malady completely changes its seat. Yesterday the patient believed he had a cancer in the liver; to-day he is quite as firmly convinced that there is organic disease of his bladder, or, it may be, a tumour in his brain; and to the new disease he transfers all his attention, remaining as self-centred as ever.

The kind of insanity with which hypochondriasis has the nearest affinity is melancholia; and by some authors it is reckoned a variety of that disease, most wrongly as I think. The gloom and depression of the melancholic madman exclude all hope from his mind, and strongly dispose him to suicide. The hypochondriac, though desperately anxious, is by no means unhopeful; and as for such despair as would tempt to suicide, he never dreams of such a feeling. I am speaking, of course, of cases which are fairly typical; but undoubtedly there is a certain number which stand much nearer to the type of true insanity, and some hypochondriacs even become really mad. It is a suspicious sign when they

come to entertain distinct hallucinations or delusions, such as that they are made of glass, that the devil is playing a barrel organ inside their belly, and the like. But it is more than suspicious, it is a fatally certain sign of the passage to true insanity, when patients begin to hate their life and try to put an end to it. Hypochondriasis is mainly a malady of middle life. It is most distinctly and preponderatingly a disease of males rather than of females: it reverses the comparative proportions, as to sex, which are observed in hysteria. So close are the analogies, and yet so interesting the differences, between these two diseases, that I shall say what more must be said about hypochondriasis in conjunction with my remarks upon hysteria; but these must be reserved for another lecture.

ABSTRACT OF

Lectures

ON

DISEASES AND INJURIES OF THE EAR.

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LECTURES VII. & VIII.

WHERE the methods of treatment described in the previous lectures have failed to disperse the accumulations of mucus in the tympanum, it becomes a question whether they may not be conveniently and effectually removed by making an incision into the tympanic membrane and expelling the mucus through the cut on passing a stream of air into the tympanum. This is the operation as performed by Dr. Politzer in obstinate cases of this kind, where the membrane appeared much "shrunken and presented a greenish-yellow colour," and with very good results. During the last few years this plan of treatment has been employed in England with varied success, in some instances with very considerable advantage. An account of it, with cases, was published by Mr. Hinton in the Guy's Hospital Reports for 1869 and 1870. While light is reflected down the speculum from a mirror fastened on the forehead of the operator, a vertical incision, about one-eighth of an inch in length, is made either in front of or behind the handle of the malleus with a small double-edged knife made for the purpose. If expulsion of the mucus does not follow the passage of air through the cut on Politzer's plan, a weak solution of soda, or simply warm water, may be passed through the incision by means of a syringe the nozzle of which fits the meatus (it is carefully protected by a rim of india-rubber), the fluid passing through the tympanum and Eustachian tube, out at the inferior nares as the head of the patient is bent downwards. In this way any accumulation of mucus in the tympanum is dislodged from its situation. The opening made in the membrane is thus merely the preliminary step of the proceeding, and is simply a means to an end; so is in no way a revival of the operation practised by Sir Astley Cooper for the relief of Eustachian obstruction and the troublesome symptom of tinnitus. This at the best could only give very temporary benefit, as an incision in the tympanic membrane heals in from two to five days. Unfortunately, it is rare to meet with appearances in this membrane of so distinct a character as to enable us to say with certainty, "there is within that tympanum the remains of catarrh in the form of semi-fluid accumulations of mucus, which can be removed after an incision has been made into the membrane." Such appearances are described, in the report referred to, as spots of a brownish or yellowish colour due to dark-coloured fluid in contact with the inner surface, bulgings of the membrane in places, especially at the posterior and superior part, and thinned spots which can be made to bulge on inflating the tympanum. In cases where these changes are noticeable, the same history is given as in others where there is no more abnormality to be seen than a somewhat exaggerated inward curvature, or a general opacity, which is merely indicative of previous attacks of catarrh. Hence the difficulty in deciding the question as to whether the opening should be made in the membrane or not. The most reliable sign, I believe, which we possess of the presence of fluid mucus in the cavity of the tympanum is the sound which accompanies inflation and is heard through the otoscope. Occasionally, upon the patient's pressing air into the tympanum there is a squeaking and bubbling sound most characteristic of the condition under notice. It is with such cases that I have never failed to obtain good results after this operation. The object of the incision in these cases is different from that had in view when it is made in the course of purulent catarrh of the middle ear: in the latter instance it is done to provide an outlet for the pus which fills the cavity of the tympanum, and which, unless let out in this manner, causes rupture of the membrane and more or less disorganisation of the contents of the tympanum. Useful as it undoubtedly is in appropriate cases, it is necessary to exercise great care and judgment in their selection, and it should not be resorted to until less severe measures have had a fair trial. In coming to a decision on this question, the occurrence of any of those symptoms which point to a lesion of the nervous apparatus (which will be detailed in a future lecture) would counter-indicate the operation.

The affection of the tympanum next in order is that in which inflammation of the mucous membrane has proceeded to the formation of pus: hence the term commonly applied to it—namely, acute purulent catarrh. The most usual circumstance under which this occurs is an attack of some one of the exanthemata, most commonly scarlet fever, the inflammation having spread up the Eustachian tube from the throat. It is also met with independently of these diseases, and often cannot be traced to any exciting cause, at least so far as can be discovered. In this case the inflammatory action begins in the tympanum. It commences with an earache; the pain increases in severity until it is of the most agonising and sickening character. General feverish symptoms soon set in. On examination of the tympanic membrane, there is in the early stage little change to be seen beyond congestion of the vessels, and the external meatus is not affected. Inflation of the tympanum aggravates the pain, and there is more or less deafness. This latter symptom varies very much. Some patients are extremely deaf, and others very slightly so. There is nearly always tinnitus, and sometimes it is severe. The act of swallowing increases the pain, as does also any movement of the head. If allowed to proceed unchecked, in from forty-eight hours to three or four days the membrane gives way, a discharge of pus appears, and, the tension being thus relieved, the pain ceases. Such is the ordinary course of an acute attack of inflammation of the tympanum. In scarlet fever the same process goes on; but, on account of the more serious symptoms which endanger life engrossing the attention of the friends (this especially with children), the symptoms referred to the ear are not regarded; and it appears, although no explanation has been offered for the fact, that, when accompanying the exanthemata, inflammation of the tympanum does not give rise to so much pain as in the idiopathic variety. It does not invariably happen that all cases of this kind eventuate in a perforation of the membrane. The pus may pass into the pharynx through the Eustachian tube; but this mode of escape is very seldom practicable, as there is too much swelling of the lining membrane of the tympanum to permit of its passage in this direction. If a case is seen in the early stage before the formation of pus, the attack may be cut short by putting on leeches in front and below the ear, followed by fomentations. The pain will sometimes subside after this, and the patients recover. If this does not happen, the injected condition of the vessels on the tympanic membrane is succeeded by a sodden appearance; and before the membrane gives way there will be more or less bulging. Whenever this is seen, no time should be lost in making an opening. After this fomentations should be applied, and the ear syringed frequently with warm water. To thus provide an exit for purulent matter in these cases is demanded by the recognised rules of surgery which guide us in similar instances; and if an examination of the tympanic membrane were more usually made, disorganisation of the tympanum and ulceration of the membrane causing partial or complete deafness, besides the later occurrence of cerebral abscess and secondary de-

posits, would be made more uncommon events than they are now. It is extremely rare for the tympanic membrane to be primarily affected; and the disease spoken of as myringitis is merely the effect of inflammation (as seen on the membrane) which has commenced within the tympanum or in the external meatus, and in the course of which it has become involved.

No mention has as yet been made of blisters applied over the mastoid process as an agent in the treatment of disease of the ear. This practice for all acute, chronic, inflammatory and non-inflammatory affections of the external, middle, and internal ear, has at any rate the fact of being a time-honoured custom to recommend it. So common is it now, that it is rare to meet with a patient suffering from disease of the ear of any long standing who has not, at one time or another, been subjected to this favourite, and fortunately harmless, remedy. This agent in treating ear affections has long been discarded altogether in Germany, and it is desirable that the example thus set us should either be followed, or that it should be determined in what class of cases blisters are likely to be serviceable. It seems highly probable that beyond a disagreeable and somewhat disfiguring sore behind the ear, which serves to remind the patient of the trouble for which they have been applied, they produce no effect on the majority of cases in which they are employed. They may possibly be useful in the extremely uncommon condition of serum in the cavity of the tympanum, and this on the principle that the vesicated surface has a vascular connexion with the cavity to be acted upon. In this way, the withdrawal of serum by means of blisters may be expected to excite the resumption of the effused serum by the bloodvessels.

Among the questions which are asked of the patients, in the ordinary routine before an examination is made, is the one of "Have you ever had a discharge from the ear?" This symptom will in most instances be accompanied by a perforation of the tympanic membrane. If this can be seen upon inspection, if the patient can with the mouth and nose closed blow through the external meatus, or if on syringing the ear the water passes into the throat, the evidence is conclusive. A very small perforation in the anterior and inferior part of the membrane is hidden from view. Some adults do not readily learn to pass air through the Eustachian tube, or the passage may be obstructed. Politzer's method will overcome any mere obstruction, and the air will pass out of the perforation with a squeaking sound that can hardly be mistaken. If the Eustachian tube be occluded this method for diagnosis is not available; but under these circumstances the perforation is generally large and of long standing, so that it can be readily seen. An appearance that is not at all uncommon in these cases, and one that was originally pointed out by Sir William Wilde, is a pulsation taking place synchronously with that of the arteries. Of all causes of perforations, the purulent catarrh of scarlet fever is the most frequent. The extent of disorganisation which the cavity and contents of the tympanum undergo will in a great degree be proportionate to the length of time which the catarrh may have lasted before the purulent matter has found an exit. If this event be long delayed, the ossicles may all come away; there may be necrosis of the petrous part of the temporal bone; from time to time pieces of dead bone which in their entirety represented the labyrinth will become loose in the meatus, and may be drawn out: all this of course producing total deafness, and in children being a fruitful source of deaf-mutism. The sooner, therefore, the tympanic membrane gives way, if it does so at all, the better; for when this takes place early in the course of the affection there will be less change wrought in the parts behind this structure. Less frequently than scarlet fever as a source of perforations are the other exanthemata, measles and erysipelas ranking perhaps highest in the list. Without any assignable cause, infants are the subjects of purulent catarrh of the tympana, which passes unnoticed until shown by a discharge from the ear. With patients who have previously had attacks of non-purulent catarrh slight exciting causes are sufficient to lead to a rupture, as in their case the membrane has been the seat of various changes which have rendered it especially prone to give way under circumstances which in health would have been very inefficient to produce this lesion. It may be said generally that perforations owe their origin to causes situated behind the membrane. Among the exceptions to this rule are accidental perforation from objects thrust into the ear, and those arising from diffuse inflammation of the external auditory meatus. This latter is much rarer than is generally supposed; still more rare is what has been stated by some observers to result in a perforation—viz., minute abscesses situated in the substance of the membrane itself. It is often impossible to get any history at all. Patients say that they have gradually become deaf, and a few days before they apply for relief they noticed a slight moisture at the external orifice, perhaps preceded by a feeling of uneasiness. Badly fed, unhealthy, tuberculous patients are sometimes in this case; and occasionally in the last stage of phthisis, a few days or hours before death, the tympanic membrane gives way. Lastly, the introduction of irritating lotions into the ear prescribed by quacks assists to swell the number of these cases.

Great differences as to size, shape, and position are observed in perforations. While a mere pinhole will describe some, almost complete absence of the membrane will be seen in others—not total destruction, as there will generally be a rim, however slight, which marks the position previously occupied by the healthy structure. Between these two "an infinite variety." In the largest forms of perforation, that part of the meatus close to the membrane is very red and swollen, with its granular surface continuous with the cavity of the tympanum, the mucous membrane lining this in like manner so red and swollen that it is impossible at first sight to distinguish any individual part, the whole looking like a cup-shaped cavity. On closely examining it may be distinguished a rounded prominence, the promontory; in front of this a depression indicating the direction which would lead into the Eustachian tube. This is about all that can be made out. If, however, under treatment, the spongy condition of the mucous membrane become more healthy, the upper part of the malleus may be detected (the handle in these cases is generally gone), and the position of the fenestra rotunda and the stapes may sometimes be seen, the first being behind, and the second above, the promontory.

Another common appearance is when the perforation has the shape of a kidney, the extremity of the handle of the malleus marking, so to speak, the hilus of the kidney. A slit-like opening, as if produced by an incision with a knife, or a little round hole, as if punched out of the membrane, either in front or behind the handle of the malleus, are among the forms chiefly met with.

Leaving to a future lecture the consideration of the fatal effects succeeding a perforation in consequence of the brain becoming affected, or pyæmic deposits taking place, I may say that it is for the discharge from the ear and the accompanying deafness that patients apply for relief. The extent of the latter symptom is not proportionate to the size of the perforation; very fair hearing will be found with almost total loss of the membrane, and considerable deafness with very small perforations. The loss of hearing depends on the effects which the suppurative process has produced in the tympanum. The whole lining membrane of this cavity is altered; there may be anchylosis in any part of the chain of ossicles, or of the stapes into the fenestra ovalis (this produces very great deafness), absence of any part of or all the ossicles, the formation of adhesions connecting them to the walls of the tympanum, thickening of the membrane covering the fenestra rotunda, and a variety of other changes, all of which have been found on examination after death.

The constant discharge of pus (secreted from the lining membrane of the tympanum) through the perforation keeps it open, and if the secretion in the tympanum ceases perforations occasionally heal. The first consideration in the treatment of these cases should be to induce a healthy condition of the mucous membrane throughout the middle ear. To thoroughly cleanse this surface it is convenient to employ the same form of syringe previously spoken of, as being provided with a nozzle which fits the external meatus air-tight. With the patient's head bent downward, water may be gently forced through the tympanum and Eustachian tube, passing out of the nose. Afterwards weak astringent solutions, such as sulphate of zinc, five grains to the ounce, may be used in this way. The results of this plan of treatment were illustrated by a number of cases published by me in THE LANCET two years ago. The whole lining membrane of the middle ear returns to a more healthy

condition, the discharge becomes less, or ceases altogether, and with this the hearing improves very much indeed. Another plan of applying astringent solutions to the lining membrane of the middle ear was introduced by Dr. J. Gruber, of Vienna. The patient bends his head to the affected side, he then with a small syringe injects some of the solution into the lower meatus of the nose, and, holding the nostrils firmly between his fingers and keeping the mouth closed, blows the solution into the tympanum and through the perforation. This is not so complete and cleansing a process as the other in which the solution is passed in a contrary direction; it requires more intelligence and trouble on the part of the patient than is always met with, and is inapplicable for children, but it possesses the advantage of being capable of practice by the patient himself, who may not perhaps be able to attend sufficiently often for the other method, and at any rate forms a good adjunct to it. If there is a temporary obstruction of the Eustachian tube it may be overcome sometimes by injecting a little water through the Eustachian catheter. When astringent lotions are used, the patient should blow through the perforation while the meatus is filled with the lotion, and on suspending the blowing the fluid will pass into the tympanum, and some of it into the Eustachian tube. Lotions should be used warm. One of the best is composed of five grains of sulphate of zinc and half a drachm of solution of opium to the ounce of a weak solution of carbolic acid.

THE RELATIVE FREQUENCY OF DISEASE BETWEEN THE RIGHT AND LEFT SIDES OF THE HEART;

DEGENERATION OF THE HEART, ITS CAUSES AND MEANS OF AVOIDANCE.

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(*Continued from p. 536.*)

THE PROGNOSIS IN THE FORMS OF HEART DISEASE CONSIDERED.

THE conditions of every case of heart disease afford ground for the formation of an opinion as to its ultimate issue. If these conditions are rightly interpreted, the result should seldom be at variance with the prognosis expressed. To the patient and friends it is of the utmost importance that there should be no misinterpretation of symptoms—no promising, from ignorance or carelessness, a continuance of life where it is impossible for life to be long maintained—no shadowing forth of sudden death where no immediate danger to life exists. In the one instance, fancied security procrastinates the adjustment of family interests, worldly pursuits, and the calm consideration of the prospect of death. In the other instance, the unfounded impression of early dissolution begets unnecessary alarm, unfits both mind and body for the warfare of life, and continually invests the case with sorrowful forebodings, anxious solicitude, and wearisome suspense.

In the interests of his patients, and for the reputation of himself, the physician should seek to interpret aright the indications which every case of heart disease affords, and to deduce therefrom a prognosis which is justified by a knowledge of the physiology and pathology of the heart, by judgment, and by the light of experience and of facts.

The dogma that *a diseased heart predicates early death* no longer retains its hold on the mind which has been accustomed to watch its diseases through all the phases of incidence, rise, climax, decline, and consequence. The heart may be diseased, and no danger whatever to life may exist. It may be affected, and danger may attach only to its somewhat distant future. It may suffer, and death is constantly at hand.

These facts are the legitimate deductions of knowledge acquired by observation, sanctioned by reason, and confirmed by experience. They teach that the degree of danger in heart disease is determined by the particular part of the heart which is affected, and by the nature and extent of the disease which exists. A mere roughness from exudation of a part of the endocardium of the left ventricle which does not interfere with the free action of the mitral or aortic valves, but which is sufficient to alter the character of the first sound of the heart, is not of itself productive of any danger whatever to life. I have known this condition of the heart exist for a period of twenty years without its advancing one step, and without its producing the least trouble or inconvenience to the patient.

In such a case the prognosis is always favourable as to the continuance of life. The patient cannot die suddenly from this condition of the heart alone.

Let, however, middle age be passed, and this condition of the endocardium may gradually and imperceptibly extend to the mitral or aortic valves, or to both; or these valves may, from the insidious stealth of natural degeneration, shrink, just as the features of the face become shrivelled by age, so as to render them no longer able to effectually close their respective apertures.

When valvular incompetency has thus been established, the case passes in prognosis from the category of safety to that of more or less danger.

The blood cannot be diverted, in any degree, from its natural course in its passage through either the left or the right side of the heart without establishing a danger which is either present or more or less remote. Present danger is more particularly caused by valvular incompetency on the left side of the heart; slower danger by valvular incompetency on the right side of the heart. Sudden death is the legitimate termination of the former; a lingering death the general issue of the latter.

When sudden death occurs in heart disease, it is due to one of three causes—either to the sudden breaking of the column of blood in the aorta, or to the diversion of the blood from its natural course as it is being projected from the left ventricle, or to the failure of the heart to contract.

The column of blood may be broken in the aorta by great incompetency of the aortic valves, which fail to afford a firm basis of support to the charge of blood which has just been thrown into that vessel by the left ventricle. From the incompetency of the aortic valves, a fissure or hole is left when they have been brought into the closest approximation of which they admit, and through this hole the blood, thrown into the aorta, may run back into the ventricle so rapidly and in such quantity that the column in the aorta is suddenly snapped, the further flow of blood to the brain is at once arrested, the vessels of the brain instantly collapse, the patient faints, falls, and dies!

The blood may, as it leaves the left ventricle, be diverted from its natural course by an incompetent mitral valve. When the incompetence is great, the greater portion of the charge of blood may, on leaving the left ventricle, regurgitate into the left auricle; whilst the smaller portion does not reach the aorta in sufficient quantity and force to pass to the brain. The vessels of the brain therefore collapse, as in aortic incompetency, and the patient dies.

Whenever the mitral valve is incompetent, a part of the ventricular force is expended in driving the blood back again into the left auricle, and a corresponding reduction of force is felt by the blood thrown into the aorta. It is easy to see that the expenditure of force in the former act may be so great, and that the force exerted upon the blood in the aorta may be so weak, that the blood cannot reach the brain.

Between, however, the two incompetencies—that of the aortic and that of the mitral valve—it may be remarked, that danger of sudden death is greater in the former than in the latter lesion. Incompetency of the aortic valves often produces sudden death; incompetency of the mitral valve less frequently. The reason why sudden death is seldom the result of mitral valvular incompetency is due to the fact, that the aortic valves are generally competent in such cases. The same incompetency of the two valves seldom co-exists; or, if both valves are incompetent, the mitral incompetency has acquired a marked precedence in extent over the aortic. Hence, in mitral incompetency, whatever quantity of blood is thrown into the aorta, finds, as a rule, a firm support in the aortic valves to rest upon, so that the column of blood, however small, is maintained

in that vessel, and reaches the brain in sufficient quantity to prevent a fatal collapse of its vessels.

It therefore follows that the prognosis, as regards sudden death, is less favourable in aortic than in mitral incompetency.

Incompetency of the latter valve is rather a conservator of the integrity of the aortic valves, because less force is exerted upon the latter valves by reason of the expenditure of ventricular force through the mitral valve. This loss of force upon the aortic valves is to some extent made up by hypertrophy which the left ventricle undergoes from the too frequent action excited by regurgitation; but it is a question whether, even with this acquired increase of power, the force now exerted upon the aortic valves equals the original force upon the same valves when the mitral valve itself is quite healthy. The additional power acquired by the heart from hypertrophy is spent upon the two valves in the same relative ratio as the original power. If the diseased mitral valve received one-half or two-thirds of the original force of the left ventricle, it will also receive one-half or two-thirds of the additional force acquired by hypertrophy. Thus, then, the force exerted by the left ventricle upon the blood in the aorta, less than natural in the very early stage of mitral incompetency, does not exceed the normal force when the ventricle has undergone hypertrophy. The evils, therefore, of mitral incompetency are not propagated in the direction of the aorta—not *with* the current of blood leaving the heart, but *against* that which is reaching the heart. The aortic valves are thus spared; but the evil effects reach the lungs, and are thence propagated to the right side of the heart. Congestion of the lungs is the first evil effect produced in the retrograde course of the circulation by mitral incompetency; then back-flooding upon the right ventricle, which becomes hypertrophied. From the former arise hæmoptysis, pulmonary apoplexy, inflammation of the lungs, but much more frequently *simple hypertrophy of the pulmonary tissues of the lower lobes;* from the latter, congestion of the brain and its consequences, venous congestion and enlargement of the different organs of the abdomen, and general dropsy. Thus, although danger is more imminent in aortic valvular incompetency, yet it is not more certain than in mitral incompetency. The one may kill at a stroke; the other kills more slowly but not less certainly.

In delivering his prognosis as to the probability of sudden death, the physician must be guided by the condition of the mitral and aortic apertures. If they are not effectually closed by their respective valves, the blood is either diverted from the aorta, or it is allowed to fall back into the left ventricle. In either case the natural character of the pulse is altered. Where mitral incompetency exists, the pulse is irregular, unequal, and probably intermittent. Where aortic incompetency is present, it is, as a rule, regular; but no sooner does it rise beneath the finger than it suddenly recedes from it and is gone again. When, however, the aortic incompetency is great, the pulse, in addition to its peculiar character of receding suddenly from beneath the finger, is also intermittent. Now, whenever in valvular disease these characteristics of the pulse are strongly pronounced, death may occur suddenly. Still, experience shows that sudden death is not the usual termination of mitral incompetency, the reason of which I have already assigned. Death, however, may and does occasionally occur suddenly in this condition of the mitral valve.

Hence the prognosis with respect to sudden death should, in mitral incompetency, be, possible—in aortic incompetency, probable.

Now, as certainly as the characters of the pulse thus indicated in valvular disease bespeak the *possibility* or the *probability* of the occurrence of sudden death, so certainly does a regular and equal—equal as to its rise and fall—pulse declare the impossibility of such an occurrence when the muscular walls of the heart are healthy.

Hence, whatever amount of mischief exists on the left side of the heart, death cannot occur suddenly so long as the pulse preserves its regularity and equality.

But aortic and mitral incompetency sooner or later end in death, because an incompetent valve on the left side of the heart *never*, as a rule, regains its normal condition—*never* again confines the blood to its natural course; but it, on the contrary, gives rise to secondary consequences, which it increases and perpetuates until death. To the right side of the heart these remarks do not apply with equal force. Here the tricuspid valve may become temporarily incompetent from the back-flooding upon it caused by inflammation of the lungs. As soon as the inflammation has been subdued and the vessels of the lungs have been relieved, the backward pressure of the blood is taken off the right cavities of the heart, and the tricuspid valve returns to its normal competence.

Very different are the effects of constriction of the mitral and aortic apertures. The very cause which increases the incompetency of their valves tends to remove the constriction. In the latter condition the blood is opposed in its onward flow from auricle to ventricle—from ventricle to aorta. At each point it has to struggle through an aperture narrowed by disease. In doing so the tendency of the effort is to widen the aperture, and to restore it to its natural diameter. No sooner has the constriction occurred to the extent of preventing the natural quantity of blood from passing these valves than a retrograde influence is propagated from the mitral valve to the lungs—from the aortic valve to the left ventricle. The former results in dilatation and subsequent hypertrophy of the left auricle, and in an excess of blood in the vessels of the lungs; the latter in a continual teasing of the left ventricle to contraction. The blood can neither enter the left ventricle nor yet leave it in sufficient quantity. The ventricle contracts upon an insufficient quantity of blood, but it does not empty itself; a small portion of blood remains in it when it has completed each individual effort. The presence of this remaining portion of blood immediately excites the ventricle to a repetition of its contraction, and this occurring more frequently than natural, the nutrition of the heart's walls is increased, and hypertrophy is the result. Hypertrophy is not, therefore, induced for the purpose of overcoming the valvular obstruction, but it follows *as a necessary consequence* of the increased action of the ventricle. In this respect it obeys the general law—that increased action leads to increased nutrition, to enlargement, to hypertrophy. Of the truth of this, the increased development of the leg of the opera dancer and of the arm of the blacksmith are examples.

Now, can a heart thus affected by constriction of its mitral or aortic valves, or of both, and by hypertrophy, ever recover its normal condition? This much may at once be said in answer, that if it cannot entirely recover its natural condition, it may at least undergo so great an improvement in every respect that it may ultimately discharge its duty without trouble, without unusual effort, and with the same ease and regularity as in its healthy state. Constrictive valvular disease is one of the diseases of the early period of life, and the result of inflammation. Changes thus produced in early life, time will enable the system to rectify. At this period of life nutrition is active; waste is active; the tissues are more instable than in perfect manhood; molecular change is the more readily brought about. If a repetition of inflammation can be avoided, the natural efforts of the system will, in the course of a few years, effect the absorption of the exudation, relieve the constriction of the valvular apertures, allow the blood to enter the left ventricle and to leave it in sufficient quantity, and in this way may restore the natural condition of the heart. This condition re-established, the hypertrophy gradually reduces until the heart at length returns to its natural size. The cause removed, the effect disappears. I am aware that this doctrine is opposed to the general opinion—that the heart once hypertrophied is never reduced to its original size. To this opinion I oppose the result of my own experience, which prompts me unhesitatingly to declare that hypertrophy thus induced in early life will, and does, pass away on the removal of its cause. That which the system is capable of effecting in early life cannot be accomplished after middle age—the practicable of youth becomes the impracticable of more advanced years. It follows from this statement that the prognosis to be given in a case of the nature just described is—*That perfect recovery may occur in youth; that it cannot be effected after middle age.* Whilst the body is yet young we ought to have unbounded faith in the efforts of nature. Her power is marvellous; and the results which she achieves often astonish our belief and put to shame our ignorance. She abhors "non-naturals," as the ancients have it, and she ever strives to substitute for them the "naturals." It is not natural to have constricted mitral and aortic orifices and an enlarged heart.

She will, therefore, endeavour to remove them. If age and the conditions of life favour her efforts, she may accomplish her task. If they oppose, she will fail, and the grave will, ere long, receive the subject of her unavailing exertions.

The heart may suddenly cease to contract from mechanical arrest, or from innate failure of action in its muscular fibres. An accumulation of fluid in the pericardium—whether of serum, or of pus, or of blood—may produce such an amount of pressure upon the surface of the heart that it can no longer beat beneath the load which oppresses it. Here it will have given previous indications of its difficulty; and, if that difficulty be properly appreciated, the prognosis delivered will always convey the expression of *danger*.

The heart may again suddenly—in an instant—fail to deliver its charge of blood, so that death occurs unexpectedly and at once, or death may be preceded by a short period of urgent symptoms which have abruptly and instantly broken in upon the patient's unsuspected and accustomed health. When death thus occurs at once, the left ventricle is instantly paralysed in its action, either by degeneration of its muscular fibre to such an extent that it can no longer respond to the incident impression caused by the presence of blood in its cavity, or by an increased amount of labour suddenly cast upon it, which it has not the power to accomplish in consequence of the extent of degeneration which its fibres have undergone. When death occurs thus suddenly degeneration of the muscular fibres will generally be found to have taken place pretty equally throughout the heart's walls. When, however, death has been preceded by a short period of urgent symptoms, this general degeneration of the heart's fibres may not exist. Certain portions of the left ventricle will generally be found to have undergone this change to such a degree that the heart ruptures at one or other of these points in its effort to discharge its blood into the aorta. The heart having by degeneration lost its power of contracting at particular points, and retaining its power of contracting at other continuous and contiguous points, traction, which cannot be correlated, is made upon the former points, the muscular fibres throughout the thickness of the heart's walls break in consequence, blood pours through the rent into the pericardium, and death quickly follows.

In every case of the degeneration of the heart's muscular fibres, whether that degeneration takes the particular form which I have described as the result of hyper-carbonised blood from defective ventilation, or that of fatty transformation, the prognosis is *unfavourable*.

If, however, the early stage of degeneration from defective ventilation be recognised, its condition may be remedied, and its evil consequences avoided, by the resolute removal of the cause; but if the fibres of the heart have undergone, to any considerable extent, that change which I have shown to be characteristic of this particular form of degeneration, there is no hope of a long continuance of life for the patient.

Of fatty degeneration of the heart an equally unfavourable prognosis may be expressed. It is essentially a disease of the degenerative period of life. It occurs more particularly when the reparative powers of the system are reduced—when the vital force is less able than formerly to withstand the power of opposing chemical influences—when every organ, every structure, has in consequence lost the stamp and vigour of youth, and is passing by slow and almost imperceptible change to decay. In such a condition, under such circumstances, the transformed muscular fibre cannot undergo retransformation—cannot recover its pristine state. Oil cannot be converted into fibrine, although fibrine has been converted into oil. The latter cannot recover the elements which the former has lost; it cannot ascend from its present to a higher organisation. The complex structures degenerate; but the simple structures no longer ascend the formative scale. The tendency of the structures of the heart is in a downward direction, which art may delay, but which it can never entirely arrest. The molecules of oil which now replace the fibrine in the sarcolemma of the muscular fibre will there remain; they will be added to, slowly it may be, from the influence of art, but nevertheless certainly, by the metamorphosis of other portions of the sarcous elements; and they will by each addition weaken more and more the structures of the heart until the labour imposed shall exceed the power to accomplish, when death more or less rapid will ensue.

It is perhaps possible, when in early life fatty degeneration supervenes on other disease, that the transformation may be arrested, and that the heart, if not too much damaged by this change, may be enabled to fulfil its duties for an indefinite time. Whether or not this arrest of transformation is ever followed by the removal from the muscular fibre of the matter transformed is a problem which has not yet been solved. That which is impracticable in after life is often practicable in early age. For this reason I readily admit the power of youth, rising triumphantly from other and temporary diseases, to arrest the transformation in question; and I do not deny that it may be competent to do still more—to remove the products of such transformation, and to replace it by healthy muscular fibre.

The prognosis, then, which necessarily flows from these views, expresses danger of sudden death in every case in which the heart's fibres have undergone fatty degeneration—impossible recovery after middle age—possible recovery in the early periods of life.

The heart knows not only a sudden death, but it knows also a death which is always slow. This arises from disease of its right chambers. Seldom indeed are these chambers the seat of inflammation, often of degeneration. Their diseases may be either primary or secondary: primary from tissue-degeneration of their walls; secondary from the mechanical stretching of their walls caused by backward pressure of blood from the lungs through the pulmonary artery. Anything which obstructs the flow of blood through the pulmonary circuit, which either opposes the onward flow from the right ventricle to the lungs, or the forward flow thence to the left auricle, may produce this backward pressure. Thus, inflammation of the lungs, emphysema, tumours, and collections of fluid in the pleura, act in the former way, incompetency of the mitral valve in the latter.

From tissue-degeneration the valves of the right side of the heart may be rendered incompetent, the heart's walls weakened, and its cavities dilated. From backward pressure of blood from the lungs and from mechanical distension of the heart's cavities the same results occur. The exciting causes are different, but the effects are the same. In nearly every instance the cause is permanent; the effect is therefore to the same extent permanent. A shrunk tricuspid or pulmonic valve cannot be made sound; a dilated right ventricle from degenerated walls cannot be restored to its natural size. Emphysema is not curable; nor are intra-thoracic tumours removable; neither can an incompetent mitral or aortic valve be rendered competent. The only cause, then, influencing the right heart which is removable, is inflammation, congestion, or some such affection of the lungs. The only effect, therefore, upon the right heart which is curable, is that which acknowledges this cause. If, then, a patient suffering from acute bronchitis, or from double pneumonia, or from sudden effusion into the pleura, is all at once found to have an incompetent tricuspid which was known not to exist before, the lesion is due to the back-flooding caused by the obstructed flow of blood through the lungs, and the incompetency will, in all probability, disappear on the subsidence of the inflammation or the removal of the effusion.

When tricuspid incompetency depends upon degeneration of the valve, it is from first to last progressive; it acknowledges no improvement; it establishes a permanent regurgitation from ventricle to auricle; it thus throws back a refluent wave of blood upon the venous system of the body, which leads to local congestions, general dropsy, and death. When, too, it supervenes upon any chronic affection of the lungs, as chronic bronchitis, asthma, emphysema, without the aid of a fresh exciting cause, its advent is marked by slight œdema of the ankles, which may always be regarded as the sure herald of approaching death. In the same light is tricuspid incompetency to be viewed when it is consecutive to mitral incompetency. Not unfrequently, however, tricuspid incompetency, arising out of mitral incompetency by reason of the obstructed flow of blood which the latter causes in the lungs, is greatly aggravated by an accession of acute bronchitis induced by cold. Dropsy, which until now had existed as a mere puffiness of the ankles only, extends to the whole subcutaneous cellular membrane; the face is bluish-red and bloated; the eyes are congested, staring, and watery; the external jugulars stand forth, full, tense, and throbbing; veins large and tortuous meander

over the neck and front of the chest, and the breathing, half-laboured, half-panting, wheezes in agony of distress. Many such cases occur in the practice of every physician of experience, who will be able to confirm this fact, that proper treatment removes the exaggerated secondary consequences induced by the inflammation, and restores the patient to the same, or even to a better condition than that in which the inflammation found him. Improvement, however, continues but for a short time; a fresh accession of inflammation occurs with its attendant consequences; treatment again removes it; again does it recur, and again it is subdued by treatment; and thus, with alternations of fresh accessions and improvements, is the patient worried, until at length one such attack overwhelms him in irretrievable ruin.

The history, the nature, the reason, afford but a gloomy prospect in affections of the right side of the heart. With few, very few, exceptions, they arise and progress steadily unto death. They do not kill suddenly, because the right heart does not supply the blood necessary for the due maintenance and innervation of the nervous system, but they kill none the less certainly by the secondary effects which they produce in every organ, every tissue of the body.

(To be continued.)

THE INDUCTION OF PREMATURE LABOUR.

By CLEMENT GODSON, M.B.,

SENIOR OBSTETRIC ASSISTANT TO ST. BARTHOLOMEW'S HOSPITAL, FORMERLY SURGEON-ACCOUCHEUR TO THE CITY OF LONDON LYING-IN HOSPITAL.

In proportion as the induction of premature labour gains more general recognition as a means of ensuring, under certain circumstances, the safety of both mother and child, it becomes more incumbent on obstetricians to determine which of the various methods that have been devised promises the best results to the individuals whose welfare is primarily involved.

That great differences exist in this respect cannot, I think, be doubted; and it is quite certain that the reputation of the operator will in a considerable degree depend upon the amount of risk and inconvenience which attends the procedure he habitually adopts. It also appears to me that, were it admitted that labour prematurely induced need be attended by no greater risk than spontaneously occurring premature labour, its induction would be far more frequently undertaken than it is at present, saving the mother the sufferings of a severe labour, and resulting in the birth of a living child instead of a dead one.

That the operation may be undertaken under such favourable conditions I now venture to submit.

The means I advocate operates by surely and safely coaxing the uterus into an action which only differs from natural labour in being artificially initiated, and which is maintained and completed under all the conditions of labour spontaneously occurring at a corresponding stage of pregnancy.

Each of the methods in general use is, according to my experience, more or less formidable, in virtue of the amount and the kind of the manipulation which it involves. Most of them are practised in such a manner as to force on too hurriedly the uterine contractions; and that which consists in the evacuation of the liquor amnii stands self-condemned, as depriving the womb at the very outset of the all-important dilator provided by nature.

My mode of procedure consists in insinuating, night and morning, between the cervix uteri and the membranes, sponge tents of gradually increasing size, the first and each succeeding one being as large as the parts will admit. On removing each tent, and before replacing it by another, a warm douche, containing Condy's fluid, is administered. I have found the use of one, two, and three tents to be sufficient, and have never had occasion to employ more than four.

The instrument by means of which the tent is placed in position is made for me by Messrs. Arnold, of West Smithfield. It is shown in the accompanying illustration, and will be found fully described in THE LANCET of April 22nd, 1871. It entirely obviates the use of the speculum, and being provided with what is equivalent to an universal joint, it enables the tent to be pushed, without extraneous guidance, between the cervix and the membranes, taking of itself the readiest path presented to it. For the same reason the membranes run no risk of puncture. The tents themselves are short, rounded at the extremity, and perforated to facilitate adaptation to the instrument.

The apparatus and the mode of its application are so simple, and so free from inconvenience and danger, that its

use causes in practice little or no anxiety on the part of the patient, and, until labour sets in, she moves about without pain or inconvenience, regardless of the presence of the tent.

Maddox-street, Hanover-square.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

EXTENSIVE FRACTURE OF THE BASE OF THE SKULL; COMPRESSION; DEATH.

(Under the care of Mr. MARSHALL.)

In the present volume (page 597) we recorded three cases of fracture of the base of the skull, followed in a few days by paralysis of the facial nerve. In the subjoined case the lesion was much more extensive, and was speedily followed by compression and death. The compression was evidently due to pressure exerted on the brain by extravasated blood, as no depressed fragment of bone could be detected. It is also interesting to note the coexistence of the symptoms of concussion and compression, the latter however greatly predominating. The autopsy afforded a full explanation of all the symptoms present during life.

Frederick S——, aged thirty-seven, on Sept. 26th fell on his head from a height of fifteen feet. On admission, a quarter of an hour after the accident, his condition was as follows:—The respirations were forcible, and divided by a distinct interval. He was totally insensible. The right eyeball was prominent; subconjunctival hæmorrhage and distension of the upper lid; pupils equal, dilated, and insensible; pulse 80, and of moderate strength. There was complete paralysis of the extremities; slight bleeding from the nose, but none from either ear; extensive extravasation of blood beneath the scalp, across the line of the coronal suture, and in each temple. The respirations became separated by gradually lengthening intervals till the patient died, about fifteen minutes after admission, the pulse continuing to beat some time after cessation of respiration.

The laboured respiration pointed to some pressure on the pons Varolii and the medulla oblongata. The interval

might be due to diminished sensibility of the respiratory apparatus, whereby respiration was retarded, and, as a result of this, blood would accumulate in the lungs and heart. The total insensibility of the patient which was first noticed might have been due to concussion, but the protuberance of the right eyeball showed that blood was extravasated into the tissues of the orbit; and the subconjunctival hæmorrhage and the distension of the upper lid pointed to fracture of the anterior part of the base of the skull. The subconjunctival extravasation is altogether different from the ordinary "black eye," for in the former case the discoloration is limited at the margin of the orbit, there being no blood in the palpebral tissue. The equal, dilated, and insensible pupils were due to insensibility of the sensorium, and pointed to compression, for in collapse the pupils react. The absence of bleeding from either ear showed that the membrana tympani was not injured. The prolongation of the respiratory interval was caused by an increase of intracranial pressure. Thus in this case all the symptoms of compression were present except the state of the pulse, which was 80 in number. It must, however, be remembered that, in all cases of severe head injury, in the first instance there is a mixture of concussion and compression; and had this patient lived sufficiently long for all the symptoms belonging to concussion to have passed off, there would have been left only those symptoms due to compression, and, with them, the slow pulse.

At the autopsy, three hours after death, there was found a scalp wound at the upper part of the right frontal region. Beneath this were two fissured fractures having an anteroposterior direction and ending in the coronal suture. The coronal suture was opened to the extent of one-twentieth of an inch; but at the lower part, where the suture runs forwards on each side, the fracture crossed the lower angle of the parietal bone, and then traversed the squamous portion of the temporal bone to reach the great wing of the sphenoid in the middle fossa of the base of the skull. On tracing the fracture still farther, on the right side it extended across the middle fossa between the foramen rotundum and foramen ovale, then backwards through the suture between the basilar process and the apex of the petrous portion of the temporal bone, and ended half-way across the basilar process. Another fracture passed through the small wing of the sphenoid into the orbital plate. On the left side, a fracture extended across the middle fossa to the apex of the petrous bone, and a separate fracture passed into the foramen magnum. This latter fracture was apparently due to the force applied to the condyle. By firm pressure on the frontal and occipital bones the fractures across the base could be made to gape a little. While removing the calvaria a large quantity of blood flowed from all the fractures, but especially from that in the temporal bone on the right side; and here and there the dura mater had been separated from the bone and was depressed by collections of blood. No injury of the dura mater or of the meningeal arteries could be made out. There was superficial but very extensive bruising of the surface of the brain. The loose tissues of the right orbit contained a large quantity of extravasated blood. There was no injury to the vertebræ. The lungs, heart, and other viscera were healthy.

ST. BARTHOLOMEW'S HOSPITAL.

POPLITEAL ANEURISM CURED BY THE LIGATURE OF THE FEMORAL ARTERY AFTER FAILURE OF COMPRESSION.

(Under the care of Mr. T. SMITH.)

THE following case—for the notes of which we are indebted to Mr. C. S. W. Cobbold—illustrates the good that may be done in cases of aneurism even after the failure of compression, which, according to some authorities, lessens the chances of success of subsequent ligature of the artery. This, however, is not granted by all surgeons; for some state that a previous compression does good by enlarging the anastomotic vessels, and thus allowing of free collateral circulation when the flow of blood is interfered with by the ligature of the main trunk.

Eliza J——, a married woman, without family, aged thirty, first noticed shooting pains in the calf of her leg after active exercise in April last; this continued until August, when she felt throbbing pains in the ham. After this the leg became œdematous between the foot and knee, but this disappeared with a week's rest in bed. The patient was able to walk until the middle of August. On admission, on September 12th, there was a tumour, about the size of two fists, in the left popliteal space, and extending towards the front at the inner side. The left foot and leg were warmer than the right; the dorsalis pedis artery could be distinctly felt. The patient was in a weak condition, with very little appetite; tongue covered with moist white fur and indented at the edges. Temperature 99·5°. Pulse 64, full and firm in the right wrist, but small and feeble in the left; the same difference existed in the brachial arteries. Nothing was found in the chest to explain these symptoms; resonance was equally good on each side, and the heart's sounds were clear and unaccompanied by any bruit.

Sept. 26th.—Digital pressure was applied to the femoral artery in the evening for three hours and ten minutes; this was followed by complete cessation of pulsation in the tumour.

27th.—8.30 A.M.: Pulsation returned in the tumour. Digital pressure again applied at 2 P.M., and continued for one hour, when a Signorini's tourniquet was substituted, and pressure kept up for two hours. This treatment gave the patient considerable pain, both at the seat of pressure and in the foot, and was not followed by any marked alteration of the tumour. All active treatment was now discontinued until the 2nd of October, when it was determined to try pressure once more, and the tourniquet was reapplied at 3.50 P.M.; but it had to be removed after about an hour on account of the almost unbearable pain which it occasioned, and a marked lividity which appeared over the whole surface of the limb.

Oct. 3rd.—The patient had slept very little. Pulse 120; temperature 99°. The pain in the foot was much increased, and pulsation in the tumour was rather more marked. A consultation was held, at which Sir James Paget, Mr. Holden, Mr. Savory, and Mr. Callender were present; and it was agreed that a ligature should be placed round the femoral artery. Accordingly, on the 5th of October, Mr. Smith tied the femoral artery in the usual situation. The operation was performed under the antiseptic plan of treatment, a spray of carbolic-acid solution being kept playing upon the wound throughout. The ligature was of carbolised catgut; both ends were cut off, and the wound closed with silver-wire sutures. Immediately over the wound was placed a layer of "protective" silk. This was covered by sixteen layers of the antiseptic gauze, with a layer of antiseptic waterproof introduced under the external layer. The whole was secured by a double layer of flannel bandages. Within an hour after the operation the patient expressed herself as much relieved, the pain in the entire limb being much diminished. At 10.30 P.M. the pulse was 90; temperature 99·5°.

6th.—11 A.M.: Slept fairly well after a subcutaneous injection of the sixth of a grain of morphia. Tongue clean, very little pain.—10.30 P.M.: Pulse 106; temperature 99·8°. Has vomited once.

7th.—Sleep again obtained by morphia. Tongue clean; no more sickness. Pulse 102; temperature 100·2°. The dressings were renewed under the carbolic spray. The wound was covered with a quantity of clear serum, but there was no pus.

8th.—Pulse 92; temperature 99·8°. Has had some pain in wound; tongue slightly furred.

9th.—Had no morphia last night; did not sleep well; skin rather dry. Temperature in axilla 103·2°; in right popliteal space 97·6°; in left ditto 102·3°. The dressings were renewed, and a quantity of serum was allowed to escape from the upper part of the wound by introducing a director. At 10.30 P.M. the pulse was 98; temperature 100·5°. A quarter of a grain of morphia injected.

10th.—Only slept two or three hours; was kept awake by pain in the foot; this has gone off this morning. Pulse 94; temperature 98·8°.

11th.—Slept well after a morphia injection. Pulse 84; temperature 99·4°. The dressings were changed; the upper part of the wound still remains open, and about two drachms of purulent fluid ran from it after the introduction of a probe.

13th.—Pulse 80; temperature 98°. Wound dressed again to-day.

15th.—The patient has a fair appetite and clean tongue. Pulse 84; temperature 98·4°. The wound was dressed to-day. The upper third of the wound is covered with healthy granulations; the middle third is quite closed, and the lower third is kept open by a piece of antiseptic silk introduced for that purpose.

18th.—Has complained of some aching pains in the knee, which have now passed off. The œdema of the leg and foot, which has been considerable ever since the operation, is now beginning to subside.

From this time the patient progressed favourably; the antiseptic dressings were continued until October 30th, when a small poultice was applied to the wound; and on November 2nd simple water dressing was ordered. At this time the œdema of the limb had entirely subsided after light bandaging. The tumour in the ham is considerably reduced in size and is very hard; the knee is constantly kept somewhat flexed, and is not yet capable of much motion. The patient has been up for several hours during the last few days, but does not yet attempt to put her foot to the ground.

WORKHOUSE HOSPITAL, LIVERPOOL.

CANCEROUS TUMOUR OF PELVIS; COMPLETE OBSTRUCTION OF LEFT URETER, WITH PARTIAL CLOSURE OF LEFT ILIAC VESSELS.

(Under the care of Dr. J. WILSON-STEELE.)

THE points worthy of notice in the following case are: first, the obscure nature of the disease, the patient never complaining of any abdominal pain till within a few days of death; secondly, that although the left ureter was occluded, the depuration of the blood was continued for some time by means of the right kidney alone; and thirdly, that the pain which extended down the back of the left thigh was no doubt caused by pressure of the tumour on the sciatic nerve.

Margaret F—— was admitted into hospital Sept. 23rd, 1872. The patient was forty years of age, the mother of three children, the youngest aged fourteen years; husband dead nine years. She had been ailing since March last, but was able to follow her usual avocations until a few days previous to her admission into hospital. The patient said that about twenty-five years ago she was knocked down by a vehicle, the wheel of which passed over her left leg. The catamenia had ceased to appear during the last three years, and had been very irregular for several years previous to that time. At the time of admission the patient complained only of weakness; pulse 110, regular, but rather weak; temperature normal. Was ordered a tonic mixture.

Sept. 24th.—The patient has passed a very restless night; complains of extreme pain down the back of the left thigh. On pressing with a pencil along the course of the sciatic nerve, there was great tenderness. Three small blisters were ordered to be applied along the course of the nerve, then the endermic application of morphia.

25th.—Slept well during the night, and expresses herself as feeling much better.

27th.—Very painful node on left tibia. Ordered iodide of potassium in five-grain doses; painful part to be painted with tincture of iodine.

28th.—Feels better.

29th.—Complains to-day of a difficulty in passing water, and of a general feeling of numbness in the left limb. Was ordered a warm bath and a diuretic mixture.

30th.—Passes more urine, but the feeling of numbness still continues.

Oct. 2nd.—General œdema of left limb, which is also very painful. Pulsation in left femoral artery much less forcible than in right. Difficulty in passing urine still continues. On the catheter being passed, the bladder was found to be empty.

4th.—Limb still œdematous. Passes urine in very small quantities.

5th.—Slept little during the night; complains of great pain in left iliac region to-day. Patient very weak.

6th.—There is a very thick fetid discharge from the vagina; limb much swollen; urine almost suppressed.

7th.—Great tenderness over abdomen; bowels constipated; ordered an enema; turpentine stupes to be applied to abdomen.

8th.—Tenderness over abdomen increased; peritonitis well marked; mind quite clear; died at 2.35 P.M.

Autopsy, thirty hours after death. — On opening the chest, the heart and lungs were found to be quite healthy. The abdomen having been opened, there was evidence of extensive peritonitis, the abdominal cavity being full of peritoneal effusion. On examining the viscera more minutely, a small tumour was found situated on the left side of the pelvis, extending slightly above the true brim and downwards towards the spine of the ischium; to the latter bone the tumour was attached. The tumour was very closely adherent to the anterior wall of the vagina, close to the neck of the uterus; it was also intimately connected with the bladder. The left iliac vessels and left ureter were seen to enter the tumour; and, on removing the fascia from the ureter, it was found to be enormously distended, from the place where it entered the tumour up to the kidney. The ureter was about eight lines in diameter. The tumour, kidneys, bladder, uterus and vagina were removed *en masse* and carefully dissected. The iliac vessels passed through the tumour, becoming greatly diminished in diameter. Whilst the left ureter was completely closed, the right ureter was also enlarged, its entrance into the bladder being marked by a prominent papilla, admitting a large-sized knitting-needle. At the place where the tumour came in contact with the vagina an abscess had formed and burst into that canal, at the same time producing a vesico-vaginal fistula, which accounted for the fetid discharge that occurred two days previous to death. On examining the kidneys, the left was found to be pale and much smaller than the right. On laying open the left kidney, its interior was seen to be totally disorganised, the pelvis and calyces being quite distended with urine. The pressure from the urine was so great as to cause some of the uriniferous tubes to project, the capsule having been pushed before them in the form of small bullæ on the surface. The tumour itself weighed ten ounces. A section under the microscope showed abundance of cancer cells. The ovaries were quite healthy.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

MR. J. A. KINGDON, VICE-PRESIDENT, IN THE CHAIR.

TUESDAY, NOVEMBER 12TH, 1872.

ON THE RESPIRATORY MOVEMENTS IN MAN, WITH AN ACCOUNT OF A NEW INSTRUMENT FOR MEASURING THE MOVEMENTS OF THE CHEST.

BY ARTHUR RANSOME, M.D.,
CONSULTING SURGEON TO LLOYD'S HOSPITAL, ALTRINCHAM.
(*Communicated by* WILLIAM OGLE, M.D., of Derby.)

EXACT numerical records of the movements of the several parts of the chest-wall are needed, both as physiological data and in the study of disease. All the methods of mensuration of these movements hitherto in use, when passed in review, are found to be faulty for many purposes, in that they record either the simple gross enlargement of the circumference of the chest, or merely the resultant of the true dimensions of the motion. Most of the movements on either side of the sternum take place in three planes at right angles to one another; and, owing to the variations in even healthy breathing, it is important to measure all the dimensions of the motion during one act of breathing. An instrument for doing this had been devised by the author. [Its construction and the mode of its application having been demonstrated, the possible sources of error in its use were pointed out, and graphical representations of the several motions were shown.]

The small extent of costal motion in ordinary breathing remarked by Haller, Hutchinson, and Sibson, rendered it necessary to observe chiefly forced respiration. In this action, in points near the ends of the sternal ribs the chief motions were forward and upward, the forward movement being most equable and starting much more rapidly at first than the upward rise, which took place chiefly at the latter portion of the act of breathing. The ordinary action of the

diaphragm seemed first to be increased; then the lower ribs, in most of the cases examined, seemed to have the precedence in rising, and were straightened at the angle between them and the costal cartilages; the spinal column was curved backwards; and finally there was a forced raising of the whole bony cage. In expiration after this effort the phenomena were reversed in order.

This account differs in some respects from that of several authors, who, however, differ among themselves, probably in consequence of the control which the will can exercise over the several motions. The order of movement of the ribs was examined, both by means of tapes and by Dr. Sanderson's stethograph, and the different types of breathing were observed in males and females by the same method.

The differences in the rates of motion forward and upward were accounted for partly by the mechanical conditions of the action, the ribs being considered as rigid bones, partly by other considerations.

The chief regions examined were the sternum, at its upper, middle, and lower portions, the clavicles, and the third and fifth ribs.

Tables showing the extent of motion in these parts in adult males and females, in childhood and old age, and in different positions were drawn up, and a want of perfect parallelism in the sternal movement was shown to exist in some cases.

The sternum moves usually more than the clavicle, and the ratio of the forward to the upward motion is somewhat greater; the lower end moves slightly more than the upper, but there is evidence of some retarding influence from the action of the diaphragm, a conclusion supported by Traube's experiments.

The clavicles move most in the final effort of breathing—they have no outward motion,—and this movement only grows distinct on the second and third ribs, increasing as we descend.

The forward push of the ribs is very remarkable. The fifth and seventh, and sometimes the second and third, have more forward movement than the sternum, and this dimension of the motion often equals the upward rise. There is much evidence of independent movement in the several ribs.

In women and children the ordinarily high ratio of the forward to the upward dimension is still further increased, but in old age it is diminished to the lowest point compatible with any rise of the ribs.

In most of the women examined the motions on the left side exceeded those on the right, in men the contrary was the case.

Position materially influences the movements, and muscular strength is also an important element. In disease the motions are naturally less extensive than in health, but there were several cases of pleurisy and phthisis in which there was evidence of an exaggeration of motion over sound parts to compensate for loss of motion elsewhere. Loss of movement was chiefly conspicuous in emphysema and asthma, but also in chronic bronchitis, although the proportions of the several dimensions of the movement were but little altered.

In phthisis it was remarkable usually how small was the extent of motion even on the healthy side, and in both males and females one of the earliest indications of disease was diminution of movement over the part immediately affected. The ratio of the forward to the upward motion was much lessened, except in some very chronic cases, in which large, dry vomicæ existed, and the disease was for the time quiescent.

Practical deductions may often be made from these records, and they are useful both in tracing the course of disease and in estimating its virulence.

PROGRESSIVE MUSCULAR ATROPHY, ACCOMPANIED BY MUSCULAR RIGIDITY AND CONTRACTION OF JOINTS, WITH EXAMINATION OF THE BRAIN AND SPINAL CORD.

BY J. LOCKHART CLARKE, M.D., F.R.S.

(Communicated by Sir WILLIAM GULL, Bart., M.D.)

A man at the age of thirty became affected with frequent vertigo, which lasted for three years. From this period he found that he was obliged to be very slow in all his movements, and that if he attempted to move his limbs quickly they trembled very much. Subsequently he felt weakness in the left leg, so that he would suddenly fall down, without feeling giddy, and the calf of that leg began to waste. Then the muscles of the right leg wasted, and four months later he noticed wasting of the muscles of the left shoulder. He complained of severe dragging pain in the arms and legs. These symptoms gradually increased through a number of years, so that at the age of fifty-eight he was quite unable to stand, or even turn in bed, or feed himself. There was great muscular rigidity. Almost all the muscles of his body were much wasted, especially those of the upper extremities. The respiratory movements were very feeble. There was no trouble with his bladder, nor any noticeable alteration of cutaneous sensibility, but electric sensibility was almost abolished. His speech was indistinct and nasal. Deglutition became difficult, and at last almost impossible, and saliva ran from his mouth. The fibrillar tremors and rigidity of the muscles wholly disappeared during the last week of his life.

Parts of the cerebral convolutions were thickly interspersed with corpora amylacea, and many of the blood-cells of the white substance were enlarged. The cells of the grey substance were not altogether healthy. The pons Varolii was somewhat below the average size; its bloodvessels were much dilated, and in some instances had partially or wholly undergone disintegration at particular spots, leaving empty tubular spaces. The corpora amylacea were thickly interspersed. The medulla oblongata was about one-fifth below the average size in the adult. All its nuclei were decidedly smaller than usual, and their cells were more or less affected by pigmentary degeneration. The diameter of the spinal cord was at least one-fourth less than the average in the adult. The grey substance, from one end to the other, was severely damaged by a variety of lesions and degenerations. In all regions of the cord the nerve-cells of the anterior grey substance had undergone considerable degeneration. Some of them had wholly disappeared by gradual pigmentary wasting, or by falling into heaps of granules. Of those that remained the processes were either lost or reduced considerably in size.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOV. 6TH, 1872.

DR. BRAXTON HICKS, F.R.S., PRESIDENT, IN THE CHAIR.

THE following gentlemen were elected Fellows of the Society:—A. H. W. Ayling, Esq., A. F. Field, Esq., Henry Harris, M.D., Geo. Mendenhall, M.D., and Joseph Szczygrelski, M.D.

Mr. WORSHIP showed a Fibro-cystic Tumour of the Uterus, complicated by pregnancy. The patient was thirty-five years of age, married two years and a half. During life she suffered acute pain over the abdomen, which had increased rapidly in size, and there was obstinate sickness during the last few weeks of life.

The PRESIDENT referred to a case of fibroid complicating pregnancy attended by Mr. D. Taylor, in which the labour was quite natural.

Dr. PHILLIPS said that large fibroid masses at the fundus uteri generally interfered materially with efficient uterine action during labour. The case was interesting as a further illustration of the difficulty of diagnosing fibro-cystic disease of the uterus from ovarian tumour. He asked whether fibro-cystic tumours of the uterus had ever been noticed to suppurate and discharge at irregular intervals. He had now at Guy's a case of uterine tumour extending high above the umbilicus, but every four or six months there was a profuse discharge of blood, and then of pus, with great diminution in the size of the growth, which again gradually increased. The patient had been under notice at intervals for five or six years.

Dr. PROTHEROE SMITH said, in reference to the probable escape per vaginam of the fluid contents of fibro-cystic growths, he would refer to three cases. The first case was one of a large abdominal tumour which became diminished in size and tension after the escape of considerable quantities of watery discharge per vaginam, at irregular intervals. In another the symptoms had existed for seventeen years. A tumour, continuous with the uterus, and extending to the umbilicus, becomes at times greatly diminished in size after a profuse discharge. A third case presented the same characters in a less marked degree.

Dr. WYNN WILLIAMS exhibited a Hodge's Pessary with

an elastic diaphragm, which he had found useful in retaining an intra-uterine pessary *in situ*.

Dr. BARNES exhibited a Fibrous Tumour the size of a large orange, which he had removed from the anterior wall of the vagina. Its attachment began just above the meatus urinarius, extending along the course of the anterior wall, but leaving a space of an inch quite clear below the os uteri. It was removed at St. Thomas's by the galvano-caustic wire. The woman did perfectly well. It was shown as an example of a comparatively rare affection.

Dr. BARNES also showed a modification of Neugebauer's Speculum, which he had devised to obviate one or two practical objections to Neugebauer's excellent instrument.

Dr. MEADOWS read a paper

ON THE TREATMENT OF SOME FORMS OF EXTRA-UTERINE PREGNANCY.

Relating a case of the so-called ventral variety, he referred to some remarks made by him, and published in the last volume of the Transactions, in which he advocated more frequent resort to the operation of gastrotomy in certain cases of extra-uterine gestation, the object of the operation being to anticipate, and so to avert, the almost inevitably fatal rupture of the cyst, and death from hæmorrhage. In the former communication the suggestion was also made that, with a view to prevent one of the great dangers attendant upon this operation—viz., hæmorrhage—the placenta should not be removed, but should be left to undergo the slow but sure process of atrophy and absorption, it being argued that, as by the removal of the fœtus there is no longer any physiological necessity for that structure, its removal by atrophy might fairly be reckoned on. The present communication was based upon another case of so-called ventral pregnancy, which, coming under the author's care during his absence, had been seen by two of his colleagues at the Hospital for Women, Dr. Squarey and Mr. Scott, and a living child at about the seventh month was removed. The attempt, however, to remove the placenta, which was situate deep down in the pelvis, and the fœtal cyst was attended by such frightful hæmorrhage that the patient succumbed in a few hours. Dr. Meadows now contended that in all cases where the diagnosis of a living and a viable child could be made out, gastrotomy ought to be performed; and that in order to facilitate the operation, and at the same time to diminish its danger, both the placenta and the containing cyst should be left *in situ*, special care being taken not to detach any portion of the placenta. In this way the operation might be reduced to a very simple process, and the chief care should be, first to extract a living child, and then to do as little damage as possible to the remaining structures, thus preventing hæmorrhage, and enabling them afterwards to undergo the process of atrophy and absorption, just as occurs in some cases where, no operation having been performed, the fœtus has died, been mummified, as it were, and finally been absorbed.

Mr. SCOTT said that in the case under discussion the danger of rupture of the cyst was imminent. As to the nature of the operation which should be performed in a similar case of advanced fœtation, looking at the extensive and firm character of the adhesions in every direction, he had no hesitation in giving his entire approval to Dr. Meadows's view as far as leaving the cyst was concerned. With regard to the placenta, he did not feel so assured. In this case, after the entire removal of the placenta, all bleeding within the cyst ceased.

Dr. MURRAY thought there was too much risk incurred in completely closing the abdominal opening, as recommended by Dr. Meadows, and leaving the placenta behind without any chance of escape. In the case reported there seemed no doubt that the cyst containing the fœtus showed signs of contraction; it might therefore be fairly presumed that the same contraction noticed might continue after the removal of the fœtus, and by this means the placenta be partially or wholly separated, and give rise to serious trouble and danger. He would certainly prefer leaving an opening with the umbilical cord passing through it.

Dr. BARNES observed that Dr. Meadows's case was scarcely required in order to prove that the removal of the cyst or placenta was bad practice. This had been settled by experience. Dr. Ramsbotham especially insisted upon this at an operation performed by his advice at the London Hospital by Mr. Adams, at which Dr. Barnes was present. The placenta was left untouched, and the woman made a good recovery. The adhesion of the placenta to the intestines was often so intimate, there being sometimes no definite sac, that the attempt to detach it must necessarily involve considerable risk; and experience had shown that if left *in situ* it would be removed safely by natural processes.

Dr. MADGE said that in extra-uterine pregnancy the placenta was bound by adhesions to the part to which it was fixed. To break up these adhesions by forcibly separating the placenta, and exposing the enlarged and highly congested vessels in apposition with its maternal surface, would—from hæmorrhage into the abdominal cavity—itself be sufficient to cause death.

Dr. PROTHEROE SMITH said the bulk of the swelling and the tension of the cyst may be easily reduced by the use of the pneumatic aspirator without risk of the admission of air, and thus, by a very simple operation, aid those natural processes by which this abnormal condition has been often brought to a favourable issue.

Dr. PHILLIPS, while admitting that simple evacuation of the liquor amnii had proved successful in some cases, thought, from what was known of the secreting power of the amnion, that this would not in all cases be found sufficient; and if it led to the death of the fœtus, the child's body had afterwards to be disposed of by long and exhausting, though occasionally successful, processes.

Dr. EDIS said that incision through the vagina and extraction of the fœtus by the forceps had not been mentioned. In the case under consideration the head was low down in Douglas's pouch. By this plan, the general cavity of the peritoneum would not be interfered with. The placenta should be left, and if it became subsequently detached, its extraction could be readily accomplished, the vaginal wound being kept open, and the cyst injected with some disinfectant. Dr. Greenhalgh had recorded a successful case of the kind.

Dr. MEADOWS said he was surprised at the statement made by Dr. Barnes that the practice advocated in the paper had long been the recognised and established rule. If this were so it was very remarkable that no obstetric writer that he knew of laid down any such rule, and Ramsbotham was absolutely silent upon it, if, indeed, he did not actually discountenance it. He was glad to find such a general concurrence of opinion as the paper had elicited. He believed, with Dr. Snow Beck, that in the majority of cases the placenta was attached to the fimbriæ or some part of the Fallopian tube, but in the case now cited, though this might have been so in part, it certainly was not altogether, for the great bulk of the placenta had been attached to, and during the operation was removed from, the interior of the cyst, deep down in Douglas's pouch, and quite independent of the Fallopian tube.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 7TH, 1872.

DR. HANDFIELD JONES, F.R.S., PRESIDENT, IN THE CHAIR.

MR. W. B. OWEN narrated a case of Epileptic Hemiplegia occurring in a female under seventeen years of age. M. D——, aged fifteen, had measles in February, 1867. Aphonia, commencing on the third day, continued until March 14th, 1867. On March 10th, well-marked epileptiform convulsions occurred, with paralysis of the right side of the face and left upper and lower extremities. The irides were much dilated and insensible to light. A counter-irritant and stimulant plan of treatment soon removed the paralysis, the mobility of the irides, the voice and memory, not being restored till March 14th. Extreme restlessness and delirium complicated the hemiplegia from March 10th to the 14th; after this date, sleep was procured by nepenthe, and convalescence slowly ensued. The patient continued weak in mental condition and suffered from occasional epileptic fits up to November, 1872.

The PRESIDENT considered the combination of hemiplegia with delirium, for some time after the convulsions had ceased, very interesting and unusual.

Mr. H. CRIPPS LAWRENCE had noted the following pathological condition always present after death from infantile convulsions—viz., either œdema or congestion of one or both the plexus chorides. The existence of such a condi-

tion during life might serve to explain the occurrence of some anomalous convulsions in adults.

Mr. H. POWER read a paper

ON WOUNDS OF THE EYE.

After noticing the responsibility and importance of accuracy in diagnosis, the author considered seriatim the symptoms and treatment of—1. Foreign bodies irritating the palpebræ and conjunctivæ, or becoming imbedded in the cornea. 2. Punctured wounds of the eye, produced by a cutting instrument, involving the middle or margin of the cornea, or the sclerotic, or lens. 3. Severe blows which do not rupture the globe. 4. Rupture of the sclerotic. 5. Burns, caused by fire, inducing symblepharon; or by lime, chiefly affecting the cornea. In treatment Mr. Power advocated the general principles of surgery, insisting on the value of rest. In rupture of the sclerotic, where vision is entirely abolished, he preferred extirpation of the globe to abscission.

The PRESIDENT inquired how strychnia acted in amaurosis, and how sympathetic ophthalmia was set up?

Mr. DE MÉRIC advised immediate removal of the globe when the injury is extensive. He inquired whether extirpation should be delayed when sympathetic ophthalmia threatened? Boissonneau, of Paris, recommends that part of the globe should be left when the globe is extirpated.

Mr. FAIRLIE CLARKE considered extirpation of the eyeball in cases of extensive injury an operation affording complete rest to the sound eye, lessening the risk of sympathetic ophthalmia, a condition which requires tonic treatment. In wounds involving the lens, the prognosis is unfavourable.

Mr. POWER, in reply, valued strychnia as a nervine tonic. He explained how sympathetic ophthalmia arose. The question between extirpation and abscission depended upon the state of the deep-seated structures, extensive deep injury necessitating the former, minor anterior injuries the latter operation.

EPIDEMIOLOGICAL SOCIETY.

THE first meeting of the Epidemiological Society this season was held on the 13th inst., when the President, Inspector-General Lawson, after some preliminary remarks, gave an outline of the epidemics in various parts of the world during the past twelve months.

The great diffusion of small-pox in 1871–72 was noticed, there having been epidemics at various points in Africa and Europe, from south of the Equator to the Arctic Ocean; in Asia, from Southern India to Siberia; in America, from Chili to Canada. The hæmorrhagic form had been met with extensively through Europe, in Siberia, and in the western hemisphere from Trinidad to Canada. It was suggested as a subject of inquiry, whether this might be connected with the influences which of late years have led to cerebro-spinal fever. It was shown that the epidemic which recently passed over this country, and north of Europe and Canada, was met with in Southern India in 1868, in Northern in 1869, in the South of France early in 1870, and in London at the end of that year.

The course of measles and scarlatina in this country was traced, and the remarkable frequency of diphtheria in Scotland noticed; in Edinburgh the ratio of mortality from this disease alone for 1871 amounted to 7·6 in 10,000 living. Its presence in other countries was also referred to. The epidemic of whooping-cough at the end of 1871 and in the early part of 1872 in this country was next considered, and it was mentioned that it had been experienced at Shanghae and Formosa in 1871, at the Cape, Mauritius, and in the West Indies and Nova Scotia early this year.

Fever, with a few local exceptions, had been low since the middle of 1871 in Great Britain and Ireland. The typhus became less frequent, the enteric more common, and within the last few months relapsing had nearly disappeared. Cerebro-spinal fever had attracted considerable attention in New York and Canada since January. Yellow fever had been met with, though nowhere in very great activity, from Montevideo, along the Brazilian coast, in the West India Islands, and Spanish Main. A febrile disorder, described as typhus or plague, has been very extensively diffused in Persia since 1871, and dengue had shown itself at Mecca, in many parts of Hindostan, in Birmah, and even in China.

Cholera resumed its activity in India at the end of last and early this year, and there have been outbreaks on the east coast in Western Hindostan, and in the country south of the Himalayas, from Ghazeepore to near Peshawur, and in the districts of Nepaul and Cashmere. In the middle of April it broke out in Turkistan, and by July was in Samarcand and Bokhara on the one hand, and on the other passed along the Amon Daria to the Sea of Aral and the north-east part of the Caspian. In Russia, cholera prevailed from the Black Sea to Finland with varying intensity in different localities; it crossed the frontier into the neighbouring districts at various points in the course of the summer, and still remains in Poland, though decreasing greatly in Russia. It has lately appeared at Buda, and single cases or small groups have shown themselves at various points more to the west, indicating a disposition to occupy fresh ground, but it is not likely to display much activity until the return of warmer weather.

Reviews and Notices of Books.

Ovarian Tumours; their Pathology, Diagnosis, and Treatment, especially by Ovariotomy. By E. RANDOLPH PEASLEE, M.D., LL.D., President of the New York Academy of Medicine, &c. pp. 538. New York: D. Appleton and Co. 1872.

THE author says that this work "was undertaken from a conviction that a practical treatise in the English language upon the subject of which it treats is greatly needed," and we unhesitatingly express our good opinion of the manner in which he has performed the task he has set himself.

The work is divided into two parts. In the first he gives the normal anatomy of the human ovary and oviduct; ovarian tumours, their classification and pathological anatomy; their growth, duration, symptoms, and prognosis. The second part is devoted to ovariotomy alone, giving its history, statistics, indications, prognosis, operative methods, and after-treatment, as well as the treatment and arrangements preparatory to ovariotomy. In addition to detailing the results of his own very great experience, he enters fully into the history of ovarian disease and the results of treatment as given by all the ovariotomists of note, bringing it down to the present time. He sums up his considerations in favour of ovariotomy in the following words:—"In all selected cases it is not, comparatively, a dangerous operation; ninety per cent. probably recovering in the hands of experienced operators; over eighty per cent. have actually been saved of cases not selected for their promising features, but taken as they came under the operators' notice, who rejected none which seemed to afford any chance of recovery from the operation." His opinions upon what others have advised are clearly set forth, and are as interesting and as important as are the propositions he has himself to advance; while there is a freshness, a vigour, and an authority about his writing which great practical knowledge can alone confer. The work is beautifully printed and illustrated, and has an index, table of contents, and bibliography.

Middlemarch. By GEORGE ELIOT. Blackwood and Sons, London and Edinburgh.

NOT the least remarkable characteristic of this remarkable novel is the truthful, amusing, and withal rather complimentary portrayal of our own profession in the person of Mr. Lydgate, the "new" doctor who came to settle in Middlemarch, the provincial town which forms the focus of the story. More often than not our profession has been treated by novelists in no complimentary manner, and the most prominent doctors of fiction are mixtures of ignorance, conceit, and pedantry. Our thanks are, therefore, due to the fair authoress of "Middlemarch" for the sketch of a type of medical man which is by no means uncommon. We

hardly know whether most to admire the consummate skill with which Lydgate's character is drawn, the manner in which his good and weak points are clearly shown to the reader without giving undue preponderance to either, or the knowledge of medical technicalities and medical modes of thought which is so frequently displayed—a knowledge which seems to flow spontaneously and without effort, a knowledge which is never introduced for the sake of mere effect. The character of Lydgate, *quoad* its *medical* aspects, is without flaw. The date of the story is 1829. Lydgate is depicted as "but seven-and-twenty, an age at which many men are not quite common—at which they are hopeful of achievement, resolute in avoidance, thinking that mammon shall never put a bit in their mouths, or get astride their backs; but rather that mammon, if they have anything to do with him, shall draw their chariot." This young gentleman, fresh from London, Edinburgh, and Paris, comes to settle in Middlemarch, and soon acquires a reputation for ability notwithstanding that "everybody's family doctor was remarkably clever, and was understood to have immeasurable skill in the management and training of the most skittish or vicious diseases. The evidence of his cleverness was of the higher intuitive order, lying in his lady-patients' immovable conviction, and was unassailable by any objection except that their intuitions were opposed by others equally strong; each lady who saw truth in Wrench and the 'strengthening treatment' regarding Toller and the 'lowering system' as medical perdition..... The strengtheners and the lowerers were all 'clever' men in somebody's opinion, which is really as much as can be said for any living talent." It is amusingly told how Lydgate, in spite of himself, was soon in hot water, and how irresistibly he was dragged into the vortex of petty country-town politics; how his frequent use of the stethoscope called forth uncharitable remarks about "new-fangled French notions"; and his determination only to prescribe, and not to deal in drugs either directly or indirectly, earned for him the names of "upstart," "prig," &c.

A very amusing description is given of a conversation, held over the wine after a dinner with the Mayor of Middlemarch, between Lydgate, the solicitor (and coroner) of Middlemarch, and one of the old-established Middlemarch doctors. The conversation is at first as to the appointment of a new chaplain for the infirmary, and Lydgate says:—

"'The fittest man for a particular post is not always the best fellow, or the most agreeable. Sometimes if you wanted to get a reform your only way would be to pension off the good fellows whom everybody is fond of, and put them out of the question.'

"Dr. Sprague, who was considered the physician of most 'weight,' though Dr. Minchin was usually said to have more 'penetration,' divested his large, heavy face of all expression, and looked at his wineglass while Lydgate was speaking. Whatever was not problematical and suspected about this young man—for example, a certain showiness as to foreign ideas, and a disposition to unsettle what had been settled and forgotten by his elders—was positively unwelcome to a physician whose standing had been fixed thirty years before by a treatise 'On Meningitis,' of which at least one copy marked 'own' was bound in calf.....

"Lydgate's remark, however, did not meet the sense of the company. Mr. Vincy (the mayor) said that if he could have *his* way he would not put disagreeable fellows anywhere.

"'Hang your reforms,' said Mr. Chicheley (the solicitor and coroner), 'there's no greater humbug in the world. You never hear of a reform but it means some trick to put in new men. I hope you are not one of THE LANCET's men, Mr. Lydgate, wanting to take the coronership out of the hands of the legal profession; your words appear to point that way.'

"'I disapprove of Wakley,' interposed Dr. Sprague, 'no man more. He is an ill-intentioned fellow, who would sacrifice the respectability of the profession, which everybody knows depends upon the London colleges, for the sake of getting some notoriety for himself. There are men who don't mind being kicked blue if they can only get talked about. But Wakley is right sometimes,' the doctor added judicially, 'I could mention one or two points in which Wakley is in the right.'

"'Oh, well,' said Mr. Chicheley, 'I blame no man for standing up in favour of his own cloth; but coming to argument, I should like to know how a coroner is to judge of evidence if he has not had a legal training?'

"'In my opinion,' said Lydgate, 'legal training only makes a man more incompetent in questions that require knowledge of another kind. People talk about evidence as if it could really be weighed in scales by a blind Justice. No man can judge what is good evidence on any particular subject unless he knows the subject well. A lawyer is no better than an old woman at a post-mortem examination. How is he to know the action of a poison? You might as well say that scanning verses will teach you to scan the potato crops.'

"'You are aware, I suppose, that it is not the coroner's business to conduct the post-mortem, but only to take the evidence of the medical witness?' said Mr. Chicheley, with some scorn.

"'Who is often almost as ignorant as the coroner himself,' said Lydgate. 'Questions of medical jurisprudence ought not to be left to the chance of decent knowledge in a medical witness, and the coroner ought not to be a man who will believe that strychnine will destroy the coats of the stomach if an ignorant practitioner happens to tell him so.'

"Lydgate had really lost sight of the fact that Mr. Chicheley was his Majesty's coroner, and ended innocently with the question, 'Don't you agree with me, Dr. Sprague?'

"'To a certain extent, with regard to populous districts and in the metropolis,' said the doctor. 'But I hope it will be a long time before this part of the country loses the services of my friend Chicheley, even though it might get the best man in our profession to succeed him. I am sure Vincy will agree with me.'

"'Yes, yes, give me a coroner who is a good coursing man,' said Mr. Vincy, jovially. 'And in my opinion you're safest with a lawyer. Nobody can know everything. Most things are "visitation of God"; and as to poisoning, what you want to know is the law. Come, shall we join the ladies?'"

On the Treatment of Diseases of the Skin, with an analysis of 11,000 consecutive cases. By Dr. MCCALL ANDERSON, Professor of Practice of Medicine in Anderson's University, &c. pp. 180. London: Macmillan & Co. 1872.

DR. ANDERSON is a sound practical physician, and recognises the fact that there is nothing very special in the therapeutics of dermatology, but that the treatment of skin maladies is, in the main, to be conducted upon those principles which guide the physician in his management of disease in general. In the volume before us this is well exemplified.

The first part of the work, which occupies seventy-two pages, consists of an analysis of 11,000 cases of skin diseases—which, by the way, is reprinted from the columns of this journal,—which charts out, as it were, the various cutaneous affections as regards their comparative frequency and kind, and indicates general relationship and pathology. In the second part, comprising 100 pages, Dr. Anderson runs over the principles which should guide the practitioner in the use of his remedies, and then proceeds to speak of particular remedies, under the two main divisions of local and constitutional treatment, indicating when and how they are to be best used. There is nothing very original in the book, which contains, however, a good practical digest of cutaneous therapeutics unincumbered by minute details, while many of the points are illustrated by notes of particular cases. There is a ring of common sense and sound judgment in Dr. Anderson's work.

THE NEW ORDERS UNDER THE PUBLIC HEALTH ACT.

THE Local Government Board have issued to the rural sanitary authorities the following circular letter, enclosing copies of regulations with reference to the qualifications, appointments, duties, &c., of medical officers of health and inspectors of nuisances:—

Local Government Board, Whitehall, S.W.,
12th November, 1872.

Sir,—Referring to the circular addressed to you on the 19th of August last, relative to the provisions of the Public Health Act, 1872, I am now directed by the Local Government Board to enclose a copy of the orders which the Board have just issued with respect to the appointments and duties of medical officers of health and inspectors of nuisances in those cases where a portion of their salaries will be repaid from moneys voted by Parliament.

It is scarcely requisite that the Board should impress upon sanitary authorities the necessity of selecting for these appointments persons who are thoroughly qualified to discharge the important duties which will devolve upon them; but the Board think it right to point out that this object will not be attained unless the salary which the authorities are enabled to offer is such as to afford an adequate remuneration for the services required.

In order to promote the appointment of competent officers, the Act has empowered sanitary authorities to unite in making joint appointments—an arrangement which will, in many instances, have the advantage of enabling the authority to obtain the services of persons specially qualified for the work, at a saving of cost to each locality.

It will be observed that the Board have made provision for these joint appointments in their orders; but as difficulties will often arise in the way of effecting the preliminary arrangements necessary for the purpose, the Board would invite those sanitary authorities who may desire to make appointments under the order to place themselves in communication with the inspector of the board for the district, who will be at their disposal for the purpose of assisting in the requisite negotiations, before any joint scheme is forwarded to the Board for their approval.

The proposals on the subject may be communicated to the Board in the enclosed forms.

I am, Sir, your obedient servant,
JOHN LAMBERT, *Secretary.*

To the Clerk to the Sanitary Authority.

REGULATIONS AS TO MEDICAL OFFICERS OF HEALTH.

To the Guardians of the Poor of the several unions, parishes, and places in England and Wales, in which such guardians act as a Rural Sanitary Authority under the Public Health Act, 1872; and to all others whom it may concern:—

Whereas, by Sec. 10 of the Public Health Act, 1872, it is enacted that it shall be the duty of every rural sanitary authority to appoint from time to time a medical officer or officers of health, being legally qualified practitioners; and that the Local Government Board shall have the same powers as they have in the case of a district medical officer of a union, with regard to the qualification, appointment, duties, salary, and tenure of office of a medical officer of health, any portion of whose salary is paid out of moneys voted by Parliament.

And whereas it is thereby further enacted, that the same person may, with the sanction of the Local Government Board, be appointed the medical officer of health for two or more sanitary districts, by the joint or several appointment of the sanitary authorities of such districts:

Now we, the Local Government Board, deeming it expedient that regulations should be made with respect to the qualification, appointment, duties, salary, and tenure of office of medical officers of health, to be appointed by rural sanitary authorities, in all those cases where any portion of the salary of any such officer is paid out of moneys voted by Parliament, do hereby order and direct as follows:—

SECTION I.—*Qualification.*

Art. 1.—No person shall be qualified to be appointed to the office of medical officer of health under this order unless he shall be registered under "The Medical Act of 1858," and shall be qualified by law to practise both medicine and surgery in England and Wales, such qualification being established by the production to the sanitary authority of a diploma, certificate of a degree, licence, or other instrument granted or issued by competent legal authority in Great Britain or Ireland, testifying to the medical or surgical, or medical and surgical, qualification or qualifications of the candidate for such office.

Provided that the Local Government Board may, upon the application of the sanitary authority, dispense with so much of this regulation as requires that the medical officer of health shall be qualified to practise both medicine and surgery, if he is duly registered under the said Act to practise either medicine or surgery.

SECTION II.—*Appointment.*

Art. 1.—A statement shall be submitted to the Local Government Board, showing the population and the extent of the district for which the sanitary authority propose to appoint a medical officer or medical officers of health, and the salary or remuneration intended to be assigned; and where the circumstances render desirable the appointment of one medical officer of health for two or more sanitary districts, statements shall, in like manner, be submitted to the Local Government Board, showing the names of the districts to be combined for that purpose, the population and extent of each district, the mode in which it is intended that the appointment shall be made, whether jointly or severally by the sanitary authorities of those districts, and the amount of salary or remuneration proposed to be assigned to the officer appointed.

Art. 2.—When the approval of the Local Government Board has been given to the proposals submitted to them, the sanitary authority or authorities shall proceed to the appointment of a medical officer or medical officers of health accordingly.

Art. 3.—No appointment of a medical officer of health shall be made unless notice has been given at one of the two ordinary meetings next preceding the meeting or meetings at which the appointment is to be made by the sanitary authority or authorities, as the case may be, such notice being duly entered on the minutes, or unless an advertisement giving notice of the day when such appointment will be made shall have appeared in some public newspaper circulating in the district or districts, at least seven days before the day on which such appointment is made: Provided that no such notice or advertisement shall be necessary for the appointment of a temporary substitute.

Art. 4.—Every such appointment shall, within seven days after it is made, be reported to the Local Government Board by the clerk to the sanitary authority, or, in the case of a joint appointment, by the clerk to one of the sanitary authorities by whom the appointment is made.

Art. 5.—Upon the occurrence of a vacancy in such office, the sanitary authority or authorities shall proceed to make a fresh appointment, which shall be reported to the Local Government Board as required by Sec. II., Art. 4, of this order; but if the sanitary authority or authorities desire to make any fresh arrangement with respect to the district or the terms of the appointment, they shall, before filling up the vacancy, supply the particulars of the arrangement to the Local Government Board in the manner prescribed by Sec. II., Art. 1, in regard to the first appointment, and if the approval of the Local Government Board be given, absolutely or with modifications, the sanitary authority or authorities shall then proceed to fill up the vacancy according to the terms of the approval so given.

Art. 6.—If any officer appointed under this order be at any time prevented by sickness or accident, or other sufficient reason, from performing his duties, the sanitary authority or authorities, as the case may be, may appoint a person, qualified as aforesaid, to act as his temporary substitute, and may pay him a reasonable compensation for his services; and every such appointment shall be reported to the Local Government Board as soon as the same shall have been made.

SECTION III.—*Tenure of Office.*

Art. 1.—Every officer appointed under this order shall continue to hold office for such period as the sanitary authority or authorities appointing him may, with the ap-

proval of the Local Government Board, determine, or until he die, or resign, or be removed by such authority or authorities with the assent of the Local Government Board, or by the Local Government Board.

Provided that the appointments first made under this order shall not be for a period exceeding five years.

Art. 2.—Where any such officer shall be appointed for one or more sanitary districts, and any change in the extent of the district or districts, or in the duties, salary, or remuneration, shall be deemed necessary, and he shall decline to acquiesce therein, the sanitary authority or authorities by whom he was so appointed may, with the consent of the Local Government Board, but not otherwise, and after six months' notice in writing, signed by their clerk or clerks, given to such officer, determine his office.

Art. 3.—No person shall be appointed who does not agree to give one month's notice previous to resigning the office, or to forfeit such sum as may be agreed upon as liquidated damages.

SECTION IV.—*Duties.*

The following shall be the duties of a medical officer of health in respect of the sanitary district for which he is appointed; or if he shall be appointed for more than one district, or for part of a district, then in respect of each of such districts, or of such part:—

(1) He shall inform himself as far as practicable respecting all influences affecting or threatening to affect injuriously the public health within the district.

(2) He shall inquire into and ascertain by such means as are at his disposal the causes, origin, and distribution of diseases within the district, and ascertain to what extent the same have depended on conditions capable of removal or mitigation.

(3) He shall by inspection of the district, both systematically at certain periods, and at intervals as occasion may require, keep himself informed of the conditions injurious to health existing therein.

(4) He shall be prepared to advise the sanitary authority on all matters affecting the health of the district, and on all sanitary points involved in the action of the sanitary authority; and in cases requiring it, he shall certify, for the guidance of the sanitary authority, or of the justices, as to any matter in respect of which the certificate of a medical officer of health or a medical practitioner is required as the basis, or in aid of sanitary action.

(5) He shall advise the sanitary authority on any question relating to health involved in the framing and subsequent working of such bye-laws and regulations as they may have power to make.

(6) On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he shall visit the spot without delay, and inquire into the causes and circumstances of such outbreak, and advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease, and, so far as he may be lawfully authorised, assist in the execution of the same.

(7) On receiving information from the inspector of nuisances that his intervention is required in consequence of the existence of any nuisance injurious to health, or of any overcrowding in a house, he shall, as early as practicable, take such steps authorised by the statutes in that behalf as the circumstances of the case may justify and require.

(8) In any case in which it may appear to him to be necessary or advisable, or in which he shall be so directed by the sanitary authority, he shall himself inspect and examine any animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, or flour, exposed for sale, or deposited for the purpose of sale, or of preparation for sale, and intended for the food of man, which is deemed to be diseased, or unsound, or unwholesome, or unfit for the food of man; and if he finds that such animal or article is diseased, or unsound, or unwholesome, or unfit for the food of man, he shall give such directions as may be necessary for causing the same to be seized, taken, and carried away, in order to be dealt with by a justice according to the provisions of the statutes applicable to the case.

(9) He shall perform all the duties imposed upon him by any bye-laws and regulations of the sanitary authority, duly confirmed, in respect of any matter affecting the public health, and touching which they are authorised to frame bye-laws and regulations.

(10) He shall inquire into any offensive process of trade carried on within the district, and report on the appropriate means for the prevention of any nuisance or injury to health therefrom.

(11) He shall attend at the office of the sanitary authority, or at some other appointed place, at such stated times as they may direct.

(12) He shall from time to time report, in writing, to the sanitary authority, his proceedings, and the measures which may require to be adopted for the improvement or protection of the public health in the district. He shall in like manner report with respect to the sickness and mortality within the district, so far as he has been enabled to ascertain the same.

(13) He shall keep a book or books, to be provided by the sanitary authority, in which he shall make an entry of his visits, and notes of his observations and instructions thereon, and also the date and nature of applications made to him, the date and result of the action taken thereon, and of any action taken on previous reports, and shall produce such book or books, whenever required, to the sanitary authority.

(14) He shall also prepare an annual report, to be made to the end of December in each year, comprising tabular statements of the sickness and mortality within the district, classified according to diseases, ages, and localities, and a summary of the action taken during the year for preventing the spread of disease. The report shall also contain an account of the proceedings in which he has taken part or advised under the Sanitary Acts, so far as such proceedings relate to conditions dangerous or injurious to health, and also an account of the supervision exercised by him, or on his advice, for sanitary purposes over places and houses that the sanitary authority has power to regulate, with the nature and results of any proceedings which may have been so required and taken in respect of the same during the year. It shall also record the action taken by him, or on his advice, during the year, in regard to offensive trades, bakehouses, and workshops.

(15) He shall give immediate information to the Local Government Board of any outbreak of dangerous epidemic disease within the district, and shall transmit to the Board, on forms to be provided by them, a quarterly return of the sickness and deaths within the district, and also a copy of each annual and of any special report.

(16) In matters not specifically provided for in this order, he shall observe and execute, so far as the circumstances of the district may require, the instructions of the Local Government Board on the duties of medical officers of health, and all the lawful orders and directions of the sanitary authority applicable to his office.

(17) Whenever the Diseases Prevention Act of 1855 is in force within the district, he shall observe the directions and regulations issued under that Act by the Local Government Board, so far as the same relate to or concern his office.

(18) Where more than one medical officer of health shall be appointed by a sanitary authority, such authority, with the approval of the Local Government Board, may either assign to each of the officers a portion of the district, or may distribute the duties of medical officer of health amongst such officers.

SECTION V.—*Remuneration.*

Art. 1.—The sanitary authority or authorities, as the case may be, shall pay to any officer appointed under this order such salary or remuneration as may be approved by the Local Government Board; and where such officer is appointed for two or more districts, the salary shall be apportioned amongst the districts in such manner as the said Board shall approve.

Provided that the sanitary authority or authorities, with the approval of the Local Government Board, may pay to any such officer a reasonable compensation on account of extraordinary services, or other unforeseen circumstances connected with his duties or the necessities of the district or districts for which he is appointed.

Art. 2.—The salary or remuneration of every such officer shall be payable up to the day on which he ceases to hold the office, and no longer, subject to any deduction which the sanitary authority or authorities may be entitled to make in respect of Section III., art. 3; and in case he shall die whilst holding such office, the proportion of salary (if any)

remaining unpaid at his death shall be paid to his personal representatives.

Art. 3.—The salary or remuneration assigned to such officer shall be payable quarterly, according to the usual feast days in the year—namely, Lady Day, Midsummer Day, Michaelmas Day, and Christmas Day; but the sanitary authority or authorities may pay to him at the expiration of every calendar month such proportion as they may think fit on account of the salary or remuneration to which he may become entitled at the termination of the quarter.

Given under our seal of office this eleventh day of November, in the year one thousand eight hundred and seventy-two. JAMES STANSFELD, *President.*

JOHN LAMBERT, *Secretary.*

DUTIES OF INSPECTOR OF NUISANCES.

The following shall be the duties of an inspector of nuisances in respect of the sanitary district for which he is appointed, or if he shall be appointed for more than one district, or for a part of a district, then in respect of each of such districts, or of such part:—

(1) He shall perform, either under the special directions of the sanitary authority, or (so far as authorised by the sanitary authority) under the directions of the medical officer of health, or in cases where no such directions are required, without such directions, all the duties specially imposed upon an inspector of nuisances by the Sanitary Acts, so far as the same are in force in the district, or by the orders of the Local Government Board.

(2) He shall attend all meetings of the sanitary authority when so required.

(3) He shall by inspection of the district, both systematically at certain periods, and at intervals as occasion may require, keep himself informed in respect of the nuisances existing therein that require abatement under the Sanitary Acts.

(4) On receiving notice of the existence of any nuisance within the district, or of the breach of any bye-laws or regulations made by the sanitary authority for the suppression of nuisances, he shall, as early as practicable, visit the spot, and inquire into such alleged nuisance or breach of bye-laws or regulations.

(5) He shall report to the sanitary authority any noxious or offensive businesses, trades, or manufactures established within the district, and the breach or non-observance of any bye-laws or regulations made in respect of the same.

(6) He shall report to the sanitary authority any damage done to any works of water-supply, or other works belonging to them, and also any case of wilful or negligent waste of water supplied by them, or any fouling, by gas, filth, or otherwise, of water used for domestic purposes.

(7) He shall from time to time, and forthwith upon complaint, visit and inspect the shops and places kept or used for the sale of butchers' meat, poultry, fish, fruit, vegetables, corn, bread, or flour, or as a slaughter-house, and examine any animal, carcase, meat, poultry, game, flesh, fish, fruit, vegetables, corn, bread, or flour which may be therein; and in case any such article appear to him to be intended for the food of man, and to be unfit for such food, he shall cause the same to be seized, and take such other proceedings as may be necessary in order to have the same dealt with by a justice: Provided, that in any case of doubt arising under this clause, he shall report the matter to the medical officer of health, with the view of obtaining his advice thereon.

(8) He shall, when and as directed by the sanitary authority, procure and submit samples of food or drink, and drugs suspected to be adulterated, to be analysed by the analyst appointed under the Adulteration of Food Act, 1872, and upon receiving a certificate stating that the articles of food or drink, or drugs, are adulterated, cause a complaint to be made, and take the other proceedings prescribed by that Act.

(9) He shall give immediate notice to the medical officer of health of the occurrence within his district of any contagious, infectious, or epidemic disease of a dangerous character; and whenever it appears to him that the intervention of such officer is necessary in consequence of the existence of any nuisance injurious to health, or of any overcrowding in a house, he shall forthwith inform the medical officer thereof.

(10) He shall, subject in all respects to the directions of the sanitary authority, attend to the instructions of the medical officer of health, with respect to any measures which can be lawfully taken by him under the Sanitary Acts for preventing the spread of any contagious, infectious, or epidemic disease of a dangerous character.

(11) He shall enter from day to day, in a book to be provided by the sanitary authority, particulars of his inspections and of the action taken by him in the execution of his duties. He shall also keep a book or books, to be provided by the sanitary authority, so arranged as to form, as far as possible, a continuous record of the sanitary condition of each of the premises in respect of which any action has been taken under the Sanitary Acts, and shall keep any other systematic records that the sanitary authority may require.

(12) He shall, at all reasonable times when applied to by the medical officer of health, produce to him his books, or any of them, and render to him such information as he may be able to furnish with respect to any matter to which the duties of inspector of nuisances relate.

(13) He shall, if directed by the sanitary authority to do so, superintend and see to the due execution of all works which may be undertaken under their direction for the suppression or removal of nuisances within the district.

(14) In matters not specifically provided for in this order, he shall observe and execute all the lawful orders and directions of the sanitary authority, and the orders which the Local Government Board may hereafter issue, applicable to his office.

(15) Where more than one inspector of nuisances shall be appointed by a sanitary authority, such authority, with the approval of the Local Government Board, may either assign to each of the inspectors a portion of the district, or may distribute the duties of inspectors of nuisances amongst such inspectors.

SURGICAL INSTRUMENTS AT THE COLLEGE OF SURGEONS.

No. II.

THE collection of instruments for the treatment of genito-urinary diseases of females is a very small one, and, curiously enough, part of it is due to female benevolence, one lady having presented two specula vaginæ, and another two female catheters, one "with a funnel"! Gooch's double canula for polypus uteri—a useful instrument in its day, but now almost superseded by the wire-écraseur—is shown; and also two complicated instruments for the removal of polypi, the invention and donation of Dr. Beaumont, of Toronto, whose name is so well known in connexion with Alexis St. Martin, of gastric-fistula celebrity. The only instrument connected with the modern operation of ovariotomy is a cautery clamp, invented last year by Mr. J. Kempthorne, in which a screw close to the hinge obviates the difficulty of want of parallelism in the blades. We would suggest to Mr. Spencer Wells, now a member of the College Council, that a complete set of ovariotomy instruments would be a valuable addition to the collection, and would serve to illustrate his own labours.

The amputating instruments go back nearly two hundred years, a case containing an amputating knife, catlin, and saw, being dated 1682, and having the name "George Horsenell" attached. The saw is a heavy bow-saw, with straight handle, and the knife curved like a bill-hook. An old French army-surgeon's case of instruments has the following attached to it:—"These instruments were the property of the Surgeon of the 69th demi-brigade of French Infantry, who was killed by a cannon-ball in an attack made by the 54th British regiment of the line on Fort Mirabout, four miles west of Alexandria, in Egypt, on the 19th August, 1801, and given by the grenadiers of the regiment (who took the fort) to Mr. Morlen, their surgeon. Presented by Thomas Keate, Esq., Surgeon-General to the Army, 1811." The case contains tourniquet, scalpels, straight-backed knives and catlins, a bow-saw, &c., also two

trocars, the canulas of which have the peculiarity that, being cut off above and prolonged upon the handle of the trocar below, they are furnished with a very convenient spout for directing the fluid drawn off. The following note applies to this case: "In the original catalogue Mr. Clift adds, 'These instruments show the miserable state of hardware manufacture in Paris, and the state of the appointments of a military surgeon in the French army.'" This is a somewhat uncharitable remark of the worthy curator, for the instruments are good and serviceable, if not finely finished, and we suspect had seen good service in numerous battles before they fell into the enemy's hands. We imagine the remark must have been penned during the Franco-phobia of the old wars.

In strong contrast to the preceding case is its next-door neighbour, containing a knife, catlin, and saw, *set in agate handles*, and a tourniquet in ivory. We need hardly say the instruments show no sign of having been used! The various curved amputating-knives of Perret, Sharp, Verderin, and Hildan, the curve of each being different, are displayed, and then a few straight knives and catlins. Various bow-saws are also shown, and the difference between them is not great; thus Perret's has a *turned* back, Radtorffer's back is *oval*, and Habenthal's back is *flat*. The second alone has the modern saw handle. Here we have the ancestors of the modern "Butcher's saw," with its reversible blade, which should be added to the series. The amputating chisels of Scultetus, both plain and semicircular, are now quite exploded for the purpose of amputation, but they are interesting as forerunners of the chisels and gouges used in cases of necrosis by the modern conservative surgeon. Scultetus' bone-forceps strongly resemble sugar-nippers, or rather Liston's cross-cutting forceps for removal of epulis. A very old pattern of Liston's straight forceps is shown here, but Fergusson's angular and semicircular forceps are wanting. A pair of broad serrated forceps with concave edges, "for holding and steadying the end of a bone," seems to have been the precursor of the last-mentioned surgeon's "lion-forceps."

Retractors are quite surgical curiosities nowadays, and a complicated metal one here shown is worth inspection. It consists of two metal plates working on an eccentric pivot, with handles to drag back the soft tissues when closed around the bone. It curiously resembles Clover's modern circumcision tourniquet, which is figured in the last edition of Erichsen's Surgery. Artery-forceps of all kinds, Assalini's, Liston's, Coxeter's, &c., are collected here; and also a variety of old-fashioned tourniquets, but not the modern instruments of Signorini and Lister, or those employed for the application of pressure to an artery in cases of aneurism. One specimen is noteworthy, being described as follows:—"A field tourniquet (Weiss) as supplied to British army in the Crimea, 1854, but found very inefficient. This one was carried by the donor when assistant-surgeon to the 63rd Regiment in the trenches before Sebastopol. Presented by Professor Flower." We must postpone to a concluding notice the description of the remainder of the collection.

Foreign Gleanings.

TREATMENT OF SYPHILIS BY MEANS OF HYPODERMIC INJECTIONS OF CALOMEL.

DRS. PIROCHI, of Teramo, and Porlezza, of Battaglione, have contributed a very important paper on the above to the *Giornale Italiano delle Malattie Veneree*, &c. The authors have recorded fifty-five cases in which they made use of calomel in subcutaneous injections, and they thus sum up the conclusions at which they have arrived:—1. Recurrence of the disease is less frequent with subcutaneous than with internal treatment. 2. Calomel is preferable to the sublimate and other salts of mercury which have been tried until now, on account of the less gravity and frequency of local and general accidents. 3. Injections with the calomel should be performed on the external and central surface of the arm. 4. The syringe should be introduced with precision into the subcutaneous cellular tissue, and care should be taken that the point be not fixed into the thickness of the derm. 5. The best vehicle for the calomel is hydrate of gum-arabic. 6. The quantity of calomel used must vary between ten and twenty centigrammes (about two to four grains). 7. Painting with collodion is very effective. 8. There should be an interval of at least ten days between every two injections. 9. The injections should be discontinued if the first two produce little or no amendment.

CASE OF ASPHYXIA IN SMALL-POX.

The asphyxia was caused by exfoliation of the mucous membrane of the throat. The strips of membrane covered the pharynx, blocked up the passage, and prevented the entrance of air. Asphyxia was imminent, and tracheotomy was decided on, when a last effort to clean out the pharynx was successful. Several strips of membrane were brought out from behind the epiglottis, and respiration became possible. The patient soon recovered. There was no œdema of the glottis. The patient had brought up no fibrinous false membranes; no abscess in the larynx, as there had been no rise of temperature at the time the dyspnœa supervened. Lastly, the boils and abscesses which coincide habitually with phlegmons of the larynx appeared only ten days later.—*Lyon Médical*, Nov. 10th.

ANEURISM OF THE SUBCLAVICULAR ARTERY CURED BY MEANS OF INJECTIONS OF ERGOTINE AND DIGITAL COMPRESSION.

The aneurism developed rapidly, and sixteen injections of ergotine were made in the space of six weeks. From the time the fourth injection was made, there was a marked diminution of the tumour. Digital compression was then employed for six hours every day, during six days. The beatings of the tumour then ceased, and five months later there were left no signs, objective or subjective, of the aneurism.—*Il Morgagni*, Nos. 11 and 12, 1872.

CASES OF STRANGULATED HERNIA SUCCESSFULLY TREATED BY PNEUMATIC ASPIRATION.

Two new cases of the above have been communicated by Dr. Chauveau, of Courtolin, to the *Tribune Médicale* of Paris. In both cases puncture of the intestine gave issue to a coloured liquid and to a certain amount of gas; in both cases reduction by means of taxis took some time to be effected (ten minutes in one instance), and required some degree of exertion. Cure took place very rapidly, and both patients were able to resume their work twenty-four hours after the puncture.

BELLADONNA IN INTESTINAL INVAGINATION AND HERNIA.

Dr. Gallicier thus sums up an interesting paper which he has published on the above in *La France Médicale* (Nov. 16th, 1872): Belladonna is, therefore, the special medicament of intestinal invagination, strangulated or not, as also of strangulated hernia. It acts both on the spasmodic element and the inflammatory element. In both cases, employed *intus et extra*, its first effect is to alleviate the intensity of pain, and to diminish or arrest the vomiting.

TERMINATION OF THE NERVES OF THE PERITONEUM.

The *Lyon Médical* of Nov. 10th contains the relation of a series of experiments on the histology of the peritoneum, conducted by M. Louis Jullien. As respects the nerves of the membrane and their termination, the author has stated the following:—The fibrilla, or extreme division of the nervous fibre, ends in a pyriform swelling, beyond which are to be seen one or several very thin nervous filaments, ending themselves in a last enlargement, which is the ultimate termination of the nervous element.

INTRA-BUCCAL RESECTION OF THE LOWER MAXILLARY NERVE.

Dr. Menzel has recorded two cases which show the possibility of resecting the lower maxillary jaw by means of an incision performed in the mouth. The proceeding which he has employed presents the following advantages:—Lesion offering no danger; possibility of resecting the nerve in an elevated situation; absence of cicatrix, of facial paralysis, and of consecutive and salivary fistulæ; facility of performing the operation.—*Archiv f. Klinische Chirurgie*, Bd. 13, Heft 1.

MOBILE FOREIGN BODY IN THE KNEE.

Dr. Geoffroy has recorded this case in the *Bulletin Médicale de l'Aisne*, 1872. The foreign substance weighed four grammes. Dr. Geoffroy was obliged to tear up many of the adhesions before extracting the foreign body, which was, therefore, very probably a product of the synovial membrane.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 23, 1872.

THE Order of the Local Government Board with respect to the qualification, appointment, duties, salary, and tenure of office of Medical Officers of Health will be found in full in our columns, and should be attentively studied by the profession. Our grave dissatisfaction with much of Mr. STANSFELD's use of the power with which he is invested under the Public Health Act shall not hinder us from giving a fair consideration to the successive instructions by which he proposes to regulate the co-operation of the local sanitary authorities with the Local Government Board. We have already admitted in general terms the satisfactory points of the letter with which this order and a similar order regulating the appointment and duties of inspectors of nuisances are accompanied. Though the Local Government Board, if we may judge from recent appointments, seems to have no adequate conception of the qualifications requisite in its sanitary inspectors, the letter in question intimates that the medical officers of health under this Act, if they are to be of any use, must be "thoroughly qualified." As if this desire for "thorough qualification" was really felt by the Board, the letter proceeds to specifically suggest to the sanitary authorities that they must be prepared to give good salaries. It will be easy enough to get the offices filled, but the Local Government Board is right in suggesting that "thoroughly qualified" men will not offer themselves unless the salaries are somewhat proportioned to the difficulties and dangers of the work to be done; and what these are we shall see immediately. Another indication that the Board is desirous of having competent medical officers is found in the prominence which it gives to the fact that by the Act the sanitary authorities are empowered to combine to make joint appointments; by which arrangement, it is hoped, the services of persons with special qualifications may be obtained at less cost to individual localities.

So much for the letter accompanying the order. Let us now consider the order itself. Perhaps we shall realise the serious nature of the subject better if we consider almost the last part of the order first—namely, that which defines the duties of medical officers of health. They are no less than seventeen in number; and in kind they are laborious, perilous, and difficult, requiring a combination of high qualities. It is only by considering the duties which are imposed on the medical officers of health in this order that we can rightly judge of the other parts of the order, which are meant to regulate the qualification and remuneration of the medical officer. The mere enumeration of his duties is a formidable business. Let us summarise them:—

1. He is to inform himself of all influences injurious to the public health. 2. He is to ascertain the causes, origin, and distribution of diseases within the district, and the extent to which these causes can be removed or mitigated. 3. He is to inspect the district both systematically and occasionally. 4. He is to be prepared to advise the sanitary authority on all matters affecting health; and, in cases requiring it, to certify, for the guidance of the magistrates and the sanitary authority, as to any matter in respect of which the certificate of a medical practitioner or officer of health is required as the basis or in aid of sanitary action. 5. He is to advise the sanitary authority in framing bye-laws. 6. On receiving information as to the outbreak of contagious, epidemic, or infectious disease of a dangerous character, he is to visit the spot without delay, advise measures, and assist in the execution of the same. 7. On receiving information of a nuisance from the inspector of nuisances, he is to take the earliest practicable steps to have it removed. 8. When necessary, he is to inspect and examine food of all kinds exposed for sale, and, if he finds it unwholesome, give directions for having it seized and dealt with by a justice. 9. He is to perform all duties required of him by the bye-laws of the sanitary authority. 10. He is to inquire into any offensive processes of trade. 11. He is to attend at the office of the sanitary authority at stated times. 12. He is to report from time to time his proceedings, and also with respect to the sickness and mortality of the district. 13. He is to keep a book or books with notes of his observations, of applications made to him, and of any action taken on previous reports. 14. He is also to prepare an annual report, in December, of the year's sickness and mortality, and of his proceedings under the Sanitary Act. 15. He is to give immediate information to the Local Government Board of any outbreak of dangerous epidemic disease, and to transmit a Quarterly Return of sickness and deaths to the Board. 16. In matters not specifically provided for in this order he is to execute the instructions of the Local Government Board and of the sanitary authority. 17. Whenever the Diseases Prevention Act of 1855 is in force within the district, he is to observe the directions and regulations issued under that Act by the Local Government Board, so far as the same relate to his office.

Clearly, with all these seventeen duties to perform to the satisfaction of two masters, the medical officer will require to be a very intelligent and a very independent man, and in the performance of them he will be subject to more risks than attach to the duties of ordinary medical practice. Accordingly we look to those portions of the order which are meant to regulate the qualification, the tenure of office, and the remuneration of the medical officers, and they are not perfectly reassuring. As to qualification, the order requires that the candidate shall be both registered and qualified to practise both medicine and surgery. But a most frustrating and remarkable paragraph follows, to the effect that the Local Government Board *may, on the application of the sanitary authority*, dispense with the double qualification. Section 10 can never have been understood by Parliament to give such licence either to the Local Government Board or the sanitary authority. As to the tenure of office, this is to be determined by the sanitary authority, with the consent of the Board, and the first appointments are not to be for a period of more than five years. Men who are to discharge such delicate and difficult duties should be appointed for life or until resignation. If this is desirable in the case of the Poor-law medical officer, it is infinitely more important in the case of the medical officer of health. The order in this respect has too much regard to the sanitary authority and too little to the

independence of the medical officer, without which his life will be a tortured one, and his work imperfect. Section 5 of the order seems to throw on the Local Government Board the responsibility of indicating the salaries to be paid. The sanitary authority is to pay the salary which the Local Government Board approves. We shall take the letter of the Board as some proof that it will advise a liberal payment of services which imply a great amount of time and labour, of special knowledge, of personal risk, and of advantage to the public. We cannot leave the consideration of the seventeen duties prescribed so specifically by this order without once more expressing our amazement and regret that men who are expected to discharge such important duties in provincial and rural spheres are not to be backed by a large staff of first-rate medical Inspectors whose reputation might awe the sanitary authorities, and whose advice and experience would have been at the service of the medical officers of the country.

THE last few numbers of the *Revue Scientifique* contain a *résumé* of a very interesting course of lectures "On the Phenomena of Life common to Animals and Plants," delivered by M. CLAUDE BERNARD at the Muséum d'Histoire Naturelle de Paris. Notwithstanding their somewhat general title, these lectures are almost entirely devoted to the subject of Glycogenesis, the mystery of which has been so greatly elucidated by M. BERNARD himself. The first lectures were occupied in describing the various forms of sugar, the tests indicating the presence of glycose, and the mode in which the quantity of that substance present in any fluid may be estimated. He himself always employs BARRESWIL and FEHLING'S fluids; but observes that the aldehydes, uric acid, leucin, hypoxanthin, mucus, cellulose, tannin, chloroform, and chloral, all act in reducing copper in the presence of strong alkalies like glycose, and consequently their absence must be ascertained before any conclusions can be drawn in regard to the amount of glycose in any fluid. He draws with a master hand an outline of the successive steps by which our present knowledge has been attained: how the sugar shown to exist in the blood was originally believed to be entirely derived from without; how by feeding a dog for weeks exclusively on lean meat it was concluded that it must be found within the economy; how by comparative analyses of portal and hepatic venous blood the liver was shown to play an important part in the process; and how by the demonstration of sugar in water transmitted through the liver after the vessels had been thoroughly cleared of blood that organ was proved to possess, not a mere converting power on some saccharine compound contained in the blood, but the capability of producing an amyloid substance, which, under the influence of some ferment—such as that produced by the pancreas,—is susceptible of conversion into glycose, and is thus fitted for the nutrition of the body. Further research showed, as all the world now knows, that this substance was isolable, and M. CLAUDE BERNARD applied the name of "glycogen" to it. In his eleventh lecture he criticises Dr. PAVY'S views, and maintains, in opposition to that experimenter, that the formation of *sugar* is not a post-mortem change, but a function of the liver, the sugar during life being instantaneously carried off by the blood, though accumulating in the organ after death. The ready passage of the saccharine substance into the blood is, he points out, materially facilitated by the peculiar relations of the hepatic veins to the hepatic cells, and by the action of the muscular coats of the walls of those veins. The nerves of the liver come from three sources: the sympathetic, the pneumogastric, and the phrenic; the branches of the latter supplying the muscular coats of the veins. And M. BERNARD tells how he was led, from the analogy of salivation being induced by pricking the root of the fifth, to try the effects of puncture of the fourth, ventricle, though it was by a mere accident that he discovered its action, the first animal experimented on being rendered highly diabetic, though no effects were produced in the following six or seven. The increased production of sugar in this case M. BERNARD attributes partly to an increase in the activity of the circulation, and partly to the direct action of the sympathetic system on the hepatic tissue.

As regards embryonic life, glycogen appears at a very early period in the embryo and its membranes: sometimes, as in the Rodents, existing between the maternal and fœtal portions of the membrane; sometimes, as in the Ruminants, being found on the internal surface of the amniotic membrane. Towards the close of intra-uterine life it diminishes in the membrane and accumulates in the fœtus. In the bird's egg sugar exists in notable quantity, and is contained in the white: if fecundation do not occur, it rapidly disappears; but if impregnation is effected, the vitellus quickly becomes charged with glycogen — the several tissues, with the exception of the muscles, becoming charged with it towards the close of incubation.

Amongst the Invertebrata glycogen is widely distributed; and M. BERNARD shows the fact, interesting to gourmands, that oysters, crabs, lobsters, and fish, when in prime condition for eating, contain abundance of glycogen; whilst, when out of condition, as when moulting (in the case of crabs), or when allowed slowly to die by asphyxia, the glycogen is entirely used up.

In giving his final conclusions, M. BERNARD states that he has been led to regard glycose ($C_{12}H_{12}O_{12}$) as the pivot on which the whole subject of glycogeny turns. It is, he says, both the primitive substance and the final substance in a long series of ascending and descending changes, and it can undergo various progressive or retrogressive modifications. Neither starch nor cane-sugar is of the least value; but the glycose formed in the economy, if not required, can be stored up in the form of glycogen, which can again, when the wants of the system demand it, undergo ready conversion into glycose. The precise mode in which this last is applied in the process of nutrition is still a matter that requires investigation.

The whole subject of glycogenesis is a striking example of what may be done by patient "questioning of nature"; and there can be little doubt that subsequent researches conducted in the same spirit as those undertaken by this distinguished physiologist will hereafter furnish us with complete information of the part played by every kind of aliment, of the modifications each undergoes in the process of assimilation, the mode in which it is applied in the pro-

cesses of nutrition, and, finally, the retrogressive changes it undergoes before being discharged from the body as effete and exhausted material.

THE "new" edition of COOPER'S Surgical Dictionary contains a short article on Scurvy; and it is recorded that "the presence of the disease should, unless under very exceptional circumstances, always contra-indicate any sort of operation." But, inasmuch as scurvy is eminently preventable, and, except in times of war and famine, ought to be almost non-existent, it is disappointing to find that, in spite of all the evidence collected and the legislation induced thereupon in 1867, as contained in some two or three clauses of the Duke of RICHMOND'S Act, the disease still prevails to an inexcusable extent in the British mercantile marine. It is said indeed that, since the above-quoted Act has been in operation, the entries for scurvy at the Seamen's Hospital have decreased more than 70 per cent. But it appears that the Board of Trade have ordered four official inquiries during the current year in the case of vessels that have returned home with scurvy-stricken crews; and we are informed that long-voyage ships very frequently put into Falmouth with sailors on board prostrated with the disease. A large Bluebook that has recently appeared contains a mass of most valuable evidence, compiled by Dr. THOMAS A. ROE, consular medical officer at Callao. A great many vessels arrive at that port from Aden; the majority of their crews are more or less affected with scurvy; and the evidence of Dr. ROE goes to prove that the disease has not perceptibly diminished since the Merchant Shipping Act of 1867 came into operation.

Hence it is evident that something else is required, and something more must be done in order to root out the pest from our merchant navy, and there can be little doubt that the Marine Department of the Board of Trade possess ample materials for the proper elucidation of this important question. They have in some cases adopted the expedient of punishing the offenders (i.e., the shipowner or captain) in a very mild manner, by publishing a synopsis of the report of the medical inspector in the *Shipping Gazette*; and from a document that so appeared in that journal a few days ago we learn that the cause of an outbreak of scurvy on board the *Queen of Australia* is attributed to the careless way in which the lime-juice was issued to the crew. We suppose that this very unsatisfactory official conclusion must be accepted, but at the same time take leave to suggest that the results of these inquiries and the reasons for such results should be regularly and systematically published. For, according to our own knowledge and belief, the causes of the perpetuation of scurvy in the mercantile marine of this country are not far to seek. We take it that, as the opening of the Suez Canal has, so to speak, revolutionised the shipping trade, most of those vessels sent round by the old route are sparsely manned and badly "found." We think, however, that, even if this be not the case, the time has now arrived when the authorities at Whitehall may very fairly and properly legalise and publish scales of diet suitable for different ships and voyages, and so do away altogether with the lime-juice clauses of the Act. It is perfectly well known that in 1867 this plan was attempted, but failed on account of the steady and unaccountable opposition of the shipowning element in the House of Commons. It is no difficult matter to prove that an antiscorbutic and nutritious diet can be provided for the crews of ships at less cost than the salt provisions still in common use; and it is as easy to demonstrate that we might then safely do away with all special antiscorbutics, and should at the same time very much improve the sanitary condition of our sailors at sea.

Medical Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH.

THE time has again come round for the Registrar-General's quarterly review of our English vital statistics, and it is satisfactory to observe that he is able to repeat for the September quarter the favourable report of the public health which he gave for the quarter preceding. We cannot help thinking, however, that he lays too much stress upon the marriage-rate as an indication of the prosperity of the population. It is a serious question with many whether all classes of the community fairly share in that prosperity; whether, for instance, the working class is not improving its position at the expense of the middle class, out of whose pockets comes by far the greatest proportion of the imperial and local taxation of the country. It would contribute in some degree to a solution of this question if the Registrar-General would tell us what relation the marriage-rate in the higher, middle, and lower classes has borne and is bearing to that increased cost of living (or diminished value of money) which has led to a general rise in the wages of the working classes without corresponding benefit to the class immediately above them in the social scale. The birth-rate in the three months, July, August, and September, exceeded the average of the season, while the death-rate was low both in town and country. "The public health," remarks the Registrar-General, "is growing more satisfactory, and leads us to hope for still further improvement from more effectual sanitary measures." The weather during the quarter was unsettled, and often very uncongenial; the frequency of thunderstorms was remarkable, and the rainfall at Greenwich slightly below the average, but in some parts of the country it was considerably in excess. In the urban districts, comprising a population of about thirteen millions, the death-rate of the quarter was 23 per 1000; among the ten millions living in the rural districts the rate was 17 per 1000; the urban rate was ·8 and the rural rate ·5 per 1000 below the average of ten previous corresponding quarters. In ordinary summers the general mortality is governed by the mortality from diarrhœa; 14,681 deaths from this disease were reported in the last quarter, equivalent to an annual rate of 2·5 per 1000, as compared with 2·8 and 3·1 per 1000 in the summers of 1871 and 1870. Of this diarrhœal fatality eight-tenths occurs among children under two years of age, and it is a significant fact that, while it caused 4·4 deaths per 1000 in the eighteen largest cities and towns, the rate was 3·5 per 1000 in fifty towns of the second magnitude, and in the whole of England and Wales, exclusive of these sixty-eight cities and towns, it did not exceed 1·5 per 1000. From these figures it is evident that diarrhœa is far more fatal among urban than rural populations; and it is further suggested that the remarkable fatality of diarrhœa in certain towns, while in others it is comparatively insignificant, may pos-

sibly be in a measure accounted for by the greatly different proportions of women employed in factories and workshops. So interesting a field of inquiry as is here indicated will, we trust, not be allowed to remain neglected. The small-pox epidemic still lingers with us, and only three counties return no fatal case during the quarter; in several towns the mortality therefrom is said to have been excessive. Measles, scarlet fever, diphtheria, and fever (undistinguished), were less fatal than in either of the two previous summer quarters. And, taking the aggregate of the seven principal diseases of the zymotic class, there has been a steady decline in their fatality in the last three summers, from 6·0 per 1000 in 1870 to 4·7 in 1872.

THE WATER-SUPPLY OF LEAMINGTON.

THE ill-advised removal of a servant from a hydropathic establishment in Leamington to London, who died, forty-eight hours after her arrival, of typhoid fever, is familiar to our readers through the reports in the newspapers of the proceedings at the inquest. The jury appended to their verdict of death from typhoid, that there was ample evidence of the water-supply of Leamington being in an unsatisfactory state. This rider to the verdict has naturally excited intense dissatisfaction at Leamington.

The town water of Leamington is taken chiefly from the river Leam, but local wells are also much used. The Leamington people have done, in regard to the verdict of the jury, what a community seems generally to do when it has the responsibility of typhoid on its shoulders; they have applied for an analysis to Dr. Letheby. And Dr. Letheby has made an analysis, and spoken comfortably to the Leamington people about the water. He finds, indeed, a good deal of organic matter in the water, as compared with the London supply, but as there is not an excessive amount of chloride of sodium and of nitrate of magnesia in the river-water—the general indications of sewage—he thinks the fair inference is that they do not exist. The organic matter he thinks of vegetable origin, most likely from the decay of leaves which fall so abundantly at this season of the year.

On the strength of this analysis and opinion there has been a public meeting at Leamington, at which resolutions were passed declaring that the water was perfectly wholesome, and had nothing to do with the production of typhoid or any other disease, and denouncing all who had cast suspicion on the water-supply before the coroner.

Now, it seems to us that this is not the way in which the public will be reassured about the water-supply of one of its most pleasant towns and most favourite health resorts. Dr. Letheby's theory of the vegetable origin of the organic matter is more ingenious than convincing, and it entirely fails to explain Dr. Frankland's analysis made in May, 1870, when there were no decaying leaves to explain the facts. Reference was made to this analysis at the inquest, but the seriousness of it was underrated. Dr. Frankland found, not 28 grains of solid impurity in 1000 gallons, but 48¼ grains in a single gallon. According to the analysis of Dr. Frankland, there was also a large proportion of chlorine and a considerable proportion of nitrates, which, to say the least, is more suggestive of sewage contamination than of autumn leaves. Moreover, the water was turbid owing to inefficient filtration. Dr. Frankland's analysis will be found in the Third Report of the Rivers Commission. This Report also gives the analysis of the local well of Mr. Jones, showing that in 100,000 parts there were 6·086 of nitrogen as nitrates and nitrites, and 14·20 of chlorine. Dr. Frankland estimates the previous sewage or animal contamination at 1590 in 100,000 parts of the Leam water, and 60540 in 100,000 parts of the water of Mr. Jones's well. The word "previous" indicates that the analysis showed that the contamination had been counteracted, and the animal or sewage matter nearly all converted by oxidation into harmless compounds, before the water was examined. Still it is unsatisfactory to have to trust to such exposure to make water safe. The water of Mr. Jones's well would seem to be fed entirely by sewage, and cannot be made fit for use by any amount of filtration or exposure. Yet in the Report of the Commissioners it is stated to have had a high reputation for purity and brilliancy. It is surely impossible to explain such facts on the autumnal leaves theory, the more so as the river actually receives the sewage of Southam and other smaller places, and the drainage from cultivated land.

The general health of Leamington was shown by Dr. Thomson at the public meeting to be very good. But the mortality of certain parts of the town is high, and with such a water-supply undoubtedly there might be any day a disagreeable extension of typhoid. The public will not be satisfied with the autumnal leaf theory, and have a right to demand that the great water sources of a place like Leamington shall not be the receptacles of sewage, nor contain forty-eight grains of solid impurity in solution in a single gallon. The general dissatisfaction with the town water is proved by the fact that nearly half the inhabitants prefer local wells, and if Mr. Jones's well be a specimen of the rest, the healthiness of the town must be attributed rather to accident than to the character of the water. "A Correspondent" writing last week says that the villages polluting the river have received notice to cease doing so. If this order is obeyed, the use of the water of the wells prohibited, and the faults of drainage described by him rectified, Leamington will soon be quite re-established in public favour. Even as it is, it is undoubtedly one of the healthiest of the healthy places of England. But it has a reputation to sustain.

THE REMOVAL OF CONVALESCENTS.

THE recent case of Best *v.* Staff, which was finally decided before the full Court of Queen's Bench on the 8th instant, raises a very important practical question. The defendant in the case was a person whose children had suffered from scarlet fever, and, on their convalescence, he took them to Eastbourne for change of air. He engaged lodgings for this purpose at the house of the plaintiff, without informing him of the malady under which the children had been suffering; and the result was that the plaintiff's children contracted the disease, and four of them died of it. The plaintiff brought his action for damages, and recovered £120. We need not discuss the painful details of this particular case; but what we wish to do is to point out the grave responsibility that rests upon medical men with regard to the removal of patients convalescent from contagious diseases. The law now forbids persons who are liable to communicate infection to expose themselves, or to be exposed by others; and it must practically rest with the medical attendant to determine when the requirements of the law have been fulfilled. It was said at the trial to which we refer that the defendant's children were moved under medical sanction; and it would be interesting to know under what circumstances this sanction was given. In the case of scarlet fever the well-known rule is to consider the patient dangerous to others until desquamation has ceased, and until the surface has been thoroughly cleansed by suitable baths. In most other maladies some analogous rule may be laid down, and some definite time may be fixed for the safe resumption of intercourse with the world external to the sick room. Until that time arrives it is the bounden duty of the medical man to do his utmost to keep his patients in

seclusion; and even when it arrives he should carefully guard his opinion, and abstain from saying, and especially from writing, any assurance of absolute safety. Great care should also be taken with regard to clothes, for it is well known that the apparel worn when an infectious disease first showed itself, after being for a time laid aside, has often been a source of contagion to others when resumed after recovery. We all know how common it is for infection to linger in seaside lodgings; and the public are fully entitled to call upon the profession to close, as far as may be, some of the channels of its dissemination by so-called convalescents.

CAN THE STATURE BE AFFECTED BY THE WILL?

AN annotation with this heading appears with the signature J. C. G. in the last number of *Nature*. The writer adduces an observation made by Babbage on the celebrated thief-taker Vidocq, who is alleged by that author to have been capable of altering his height to about an inch and a half less than his ordinary stature. This alteration was not accompanied by any sense of fatigue, even when maintained throughout a whole day, and proved very useful to him as a disguise. J. C. G., in endeavouring to explain this on the assumption that Babbage's observation was (as it was likely to be) accurate, considers that the change in height could be explained only by admitting a stoop of the head and shoulders, or a bending of the knees, or an actual shortening of the vertebral column, and proceeds to point out that such shortening might possibly be effected by the action of the longus colli and psoas magnus muscles anteriorly, and by the numerous dorsal muscles posteriorly, effecting by their combined action the compression of the intervertebral fibro-cartilaginous discs. He admits, however, that this is not very probable. It seems to us that such shortening would be caused essentially by an increase in the natural curvatures of the column, caused by *relaxation* of the dorsal muscles. This can easily be shown by the difference that can be at once made in the height when in a sitting posture, according to whether we sit in a slovenly position or upright. The amount of sinking is no doubt less in a standing than in a sitting position, but in the former it would be supplemented by that fall of the haunches which occurs in passing from "attention" to standing at ease, and is dependent on the relaxation of the psoas, iliac, and glutei muscles. Such an explanation would, at all events, be more in accordance with the fact that Vidocq felt no fatigue when shortened, which is incredible if large muscles were acting so strongly as to overcome the natural elasticity of the spinal column to the extent of an inch and a half.

BIG CAMPS AND THE CHOLERA.

IT is thought that the establishment of the camp of exercise in the Punjab may have to be deferred indefinitely owing to the presence of cholera. A military contemporary states that the Commander-in-Chief will require an expression of opinion on the part of the medical head of the British troops as to the safety of the proceeding before taking any action in the matter. People in this country, and doctors "who live at home at ease," can have very little conception of the grave responsibility entailed on medical officers of high position in India under such circumstances. Only a year ago troops proceeded from various parts of India, at a very considerable cost to the Government, to a given centre, for the purpose of going through a series of military manœuvres on a large scale. A huge camp was in rapid process of formation when cases of cholera occurred among some of the natives. To break up the camp would have entailed great disappointment, vast expense would have been incurred to no purpose, and the political objects of the military gathering would, of course, have been lost. It is very likely, too, that so costly an experiment, if unsuccessful, would not have been repeated. On the other hand, an outbreak of cholera, in an epidemic form, among so large a body of troops, would have proved a terrible disaster. If ever courage, common sense, and coolness of judgment were required in the medical chief of a department it was on an occasion like this. The medical head of the British troops was summoned by telegraph to give his opinion as to the expediency of delaying the undertaking. After giving the facts mature deliberation, laying down the precautions necessary to guard against the spread of the disease, and providing for the rapid dispersion of the troops in the event of its unhappily doing so, medical sanction was given to the carrying out of the manœuvres. The calculations proved to be perfectly accurate, for the cholera did not spread. Officers serving in India will easily recall the circumstances as well as the name of the individual who had the courage to undertake this responsibility, which led to the "Delhi Camp" being one of the great military events, and, in a political sense, one of the moral achievements, of the year.

SMALL-POX AT WORCESTER.

THE inhabitants of the city and vicinity of Worcester have lately been much exercised in their minds by the prevalence of small-pox in the locality, and especially by its appearance in the Worcester Infirmary, and by the action that has been taken in consequence. The disease was introduced into the infirmary by a patient who was admitted on account of an accident, and upon whom the eruption showed itself two days after his admission. Fifteen days later one of his nurses sickened, and two other patients on the day following. The infirmary authorities, as far as we can gather from the somewhat conflicting statements that have been published, then advised the dismissal to their homes of all the patients who could be moved with safety; and about forty persons were actually thus sent away, after having been seventeen or eighteen days in the same building with the contagion. These patients were all vaccinated before they went out; but were not retained to see whether the vaccination would take effect. In one of them certainly, and it is said in others also, small-pox was developed at dates to show that it had been contracted in the infirmary; and fresh centres of contagion were thus established in one or more localities. The course pursued was very strongly condemned in some of the local papers; and has been defended by the medical staff of the infirmary in a joint letter. The staff allege as the chief reason for the course pursued that the infirmary is neither a pest-house nor a prison; that it could not receive contagious disease without ceasing to discharge its proper functions; and that, as patients can discharge themselves at will, a continued outflow of contagion might have gone on if small-pox had been suffered to accumulate in the institution. For this view something may, of course, be said; but it seems manifest that the proper course would have been to have vaccinated the patients as soon as the first case of the disease appeared, and then to have detained them until the vaccination had taken effect. Some few might have insisted on leaving; but hospital patients, as a rule, are very amenable to the advice given to them by the medical officers of the charity.

Beyond the infirmary, in the city and some neighbouring villages, the disease appears to be rife; and communications have passed between the board of guardians and the Local Government Board with regard to a change in the arrangements for vaccination. As far as we can judge,

these seem to be fully adequate to the requirements of the case; but Dr. Stevens, one of the inspectors of vaccination, has been instructed to visit Worcester, and to examine into the matter on the spot.

THE LONDON WATER COMPANIES.

IN conformity with the Act of 1871, a statement of Accounts of the Metropolitan Water Companies for the year 1871 has been presented to the Board of Trade, and is now just issued as a parliamentary paper. Those who are sufficiently interested in the subject to undertake for themselves the labour of analysing these accounts will probably be led to the conclusion at which, on other grounds, we have long since arrived—namely, that the existing state of things ought not to continue. For what does this return disclose as perhaps its most remarkable feature? Just this, that the eight metropolitan Companies spent over £90,000 in the year 1871 upon management expenses alone as charged to revenue account, irrespective of expenses charged to capital account. Out of this £90,000, allowances to directors absorbed £14,600, and law and parliamentary costs £10,874. The commissions paid to collectors alone amounted to nearly £29,000, equivalent to fully 2½ per cent. on the aggregate income from the water-rates, which (so far as we can make out) appears to have been a little over a million in the year. Now we submit that it is a question for the serious and prompt consideration of the inhabitants of the metropolis whether a very large proportion of the £90,000 spent in one year by the Companies for mere management expenses is not just so much money thrown into the gutter as far as the ratepayers are concerned. We have no doubt whatever that it is so. The £14,600 swallowed up in directorial fees would clearly be saved if the supply were vested in the Metropolitan Board of Works, or in any properly constituted municipal body; and the cost of collecting the water-rates appears to us susceptible of reduction. The usefulness of this return would have been immensely increased had its compilers taken the trouble to append a summary, and a few lines of explanation as to the various items in the accounts, which in some respects are puzzling to the uninitiated in such matters.

THE COPYRIGHT OF ILLUSTRATIONS.

THE case of Bradbury *v.* Hotten, decided in the Court of Exchequer on the 14th inst., is of interest to those medical authors who, having expended much labour and not a little money in illustrating a work on some medical subject, find their labours appropriated without permission by the next writer on the same or an allied subject. Mr. Hotten, the publisher of Piccadilly, had copied, sometimes entirely and sometimes partially, nine of the cartoons in *Punch* into his work "The Life of Napoleon III."; and judgment was given for the proprietors of *Punch*, notwithstanding that the plaintiff's counsel quoted an expression of Lord Eldon—that this was "a legitimate use of the plaintiff's publication for the exercise of a mental exertion deserving the character of an original work," and also cited Lord Chief Justice Jervis's words that the defendant had not exceeded "the right of extract which the law allows for the purpose of comment, criticism, or illustration."

We would be the last to counsel an illiberal line of conduct among professional and scientific men; but there have been lately one or two such wholesale appropriations of other people's work that we think some notice may be properly taken of the subject. It is not in our opinion sufficient to state in the preface that "by the kind permission of Mr. So-and-so" certain illustrations have been borrowed from his work, but each borrowed woodcut ought to have the name of the original proprietor placed below it. Even if this were done without the specific permission of the author the reproducer would be liable to an action, since, according to Baron Bramwell, one of the sins of Mr. Hotten was that he had "reproduced the plaintiff's woodcuts for the identical purpose for which *Punch* had used them—namely, that people might laugh at them." Medical woodcuts seldom excite much merriment in their beholders, but purposes of instruction would do as well for all legal ends, and we therefore recommend future authors to be careful of piracy.

DR. BAUMLER'S PROMOTION.

THE German universities recruit their professors in a manner which, in some degree, is more calculated to make good teachers than actual competition. When a chair is vacant the Council pass in review those men who, by their works, or by actual lectures, have proved themselves highly competent to fill the vacancy, from among whom they make a selection. When the individual chosen has already attained a certain eminence, the offer is made as tempting as possible. Now and then it happens that much reluctance is shown by men of talent to leave the chair they already occupy, and the friends they have around them. Scanzoni and others have been known to prefer smaller emoluments for the sake of remaining in the universities where they had obtained their fame, in spite of brilliant prospects held out in other centres of learning.

One of the physicians of the German Hospital at Dalston, Dr. Bäumler, has just been the object of such a flattering election by the University of Erlangen, where he will occupy the chair of Materia Medica. Dr. Bäumler, both at Dalston and at the Victoria-park Hospital for Consumption, has proved himself a most successful scientific inquirer, and many of his writings, both in this country and in Germany, testify how zealously he has investigated many difficult subjects in the science and practice of medicine. His colleagues, whose esteem he had won through a series of years, wished to express how much they were gratified at his promotion. They invited him to a dinner at Willis's Rooms on the 16th inst., and, after warm congratulations to the guest on the auspicious event, presented him with a very handsome gold watch and chain, as a token of their appreciation of his merits, at a moment when he is leaving them to take possession of the professor's chair at Erlangen.

HEALTH OF THE NAVY.

DR. MACKAY'S Statistical Report on the Health of the Navy for the year 1870, which has just been published, gives a favourable account of Her Majesty's ships on their various stations. The death-rate from disease alone during the year was only 6·7 per 1000 men, having been 7·3 per 1000 in 1869; but unfortunately the entire mortality was swollen by two terrible catastrophes which occurred during the year—the loss of H.M.S. *Captain* in the Bay of Biscay, and that of H.M.S. *Slaney* in the China Sea.

Zymotic diseases appear to have prevailed extensively on the home station, and particularly in the training-ships both for naval cadets and boys. Yellow fever seems to have been less rife than usual on the North American and West Indian stations; but it was greatly prevalent on the south-east coast of America—ten cases, of which no less than seven proved fatal, occurring at Rio Janeiro.

The evidence in favour of the utility of the Contagious Diseases Acts continues to be almost unanimous. Portsmouth is less favourably situated than Plymouth for carrying the provisions of the Acts into full effect; but even there the surgeons of the *Duke of Wellington* and *Excellent*

agree that the bulk of the primary syphilis is imported by men returning from leave to distant parts, and that the disease, when contracted in port, has assumed a milder form. Gonorrhœa, however, so far from diminishing, is rather on the increase; and this is due, no doubt, partly to the employment by prostitutes of an astringent injection before the stated examination, and partly to the difficulty in distinguishing between infecting and non-infecting discharges.

WOMEN AS CHEMISTS.

GREAT ingenuity is manifested in suggesting occupation for women. The idea that all respectable young ladies should take to the study of medicine does not make much progress. To say nothing of the legal difficulties, which we should like to see removed, it is more and more felt that medicine, even in its obstetric department, is not a calling either for unmarried girls or married women. The *Pall Mall Gazette* suggests that the business of a chemist would suit women very well. The Pharmaceutical Society is ready to educate and examine them, and our contemporary thinks they cannot do better. There is certainly much to be said in favour of this suggestion. Pharmacy is an art which has for its object the putting of drugs and other substances, generally not of a very agreeable character, into agreeable and useful forms and combinations. The work is not laborious, but nice and responsible, and withal profitable. There is nothing in the process of education or in the business of a pharmaceutical chemist that would be unbecoming in a woman. For purposes of neat compounding she would be a serious rival. The success of a pharmaceutical chemist turns very largely upon the way in which dispensing is conducted, and the natural handiness and neatness of a woman would find ample field in it. Our contemporary gives a wonderful account of the profitableness of the drug trade, as amounting to 400 or 600 per cent. Doctors are only waiting till dispensing can be done at reasonable prices by chemists to hand over the whole of their prescriptions to them. Perhaps the introduction of women into the trade may hasten this most desirable arrangement.

THE HALIFAX MEDICAL OFFICER OF HEALTH.

THE Halifax Council has refused, by a large majority, to reconsider the recent appointment, though memorialised by 39 medical men out of 41 in the borough. This refusal must be regarded as an additional mark of disrespect to the profession. The intelligence with which fitness and qualification have been judged of in this matter may be gathered from one argument of Mr. Ainley's friends: Mr. Riley "has found that Mr. Ainley was registered as a Bartholomew's man, the finest college in Europe." Mr. Binns followed in the same strain, saying, that when Mr. Ainley got his diploma from Bartholomew's (*sic*) he was obliged to pass an examination in medicine . . . . True, he was not a Licentiate of the College of Physicians, but it was always held that a Bartholomew's man ranked higher than such a licentiate. Mr. Binns also threw light on the nature of the duties devolving on medical officers of health, and argued that they wanted a man to roll up his shirt sleeves, put off his boots, and go into the worst sanitary places in the town; and such a man they had in Mr. Ainley. As the salary of Mr. Ainley, £100, is to be paid entirely by the Corporation, the Local Government Board has not the same right of criticism which it would otherwise have. But the memorial of the medical men has been transmitted to the Board, and we believe attention to it has been promised. It remains a simple fact that Mr. Ainley has not the qualifications for an ordinary Poor-law appointment, and that he has not the qualifications required in the Public Health Act, as defined in the first section of the General Order, which we publish to-day. To use its words, he is not "qualified to practise both medicine and surgery." We do not expect this disqualification to be regarded in the least by Mr. Binns and Mr. Riley, who are satisfied with nothing so much as with a "diploma from Bartholomew's"; but it may serve to induce some members to doubt the legality of the appointment. We have to confess, however, with some pain, that the last paragraph of Section 1 makes it easier for the Local Government Board to dispense with full qualification in regard to these appointments than in the case of ordinary Poor-law appointments. Had that paragraph been made for the Halifax case it could scarcely have been more perfectly adapted to it. It is not complimentary to the new office that qualifications for it should be less strict than for Poor-law appointments.

URBAN DEATH-RATES.

IN a letter to *The Times*, Dr. Grindrod, of Malvern, complains of the treatment which that agreeable health-resort annually receives at the hands of the Registrar-General in giving the death-rate of the registration *sub-district* in which Malvern is situate as approximately representing the mortality of the town itself. The sub-district, however, comprises not less than seven parishes, of which Malvern is one; and in it is also situate the County Lunatic Asylum, for which, as we understand Dr. Grindrod, no allowance is made. The true death-rate of Malvern proper, according to his calculation, averages only 13 per 1000, whereas the rate for the sub-district averages 20 per 1000. He therefore urges that the Registrar-General ought to give the public correct details in order to enable them to arrive at definite conclusions as to the salubrity of our watering-places, and we entirely coincide with that opinion. Three years ago we insisted that questions relating to the healthiness or unhealthiness of a *town* could never be satisfactorily discussed on the basis of the mortality of the *sub-district*, whereof the town forms only an integral portion; and we contended that, until the Registrar-General was in a position to give proper *town* death-rates, he should refrain from publishing statements that are calculated to mislead the public. Notwithstanding these and other objections, the Registrar-General has adhered to his sub-district mortality tables, with the result of producing every summer indignant remonstrances from towns aggrieved by this very rough and ready method of statistics.

THE EPIZOOTIC AMONG HORSES.

WE are in a position to say that a statement which appeared recently in some country papers as to the existence of a disease among horses in this country identical with that which has caused so much havoc among these animals in America, is without foundation. A few cases of bronchial catarrh or influenza among some horses at Dronfield represent the whole history of what is termed, in defiance of the etymology of the word, the "epidemic" among horses in this country. The amount of sickness among the horses in Sheffield and its neighbourhood seems, however, to be large at the present time. As regards the late outbreak in America, we learn from the *Philadelphia Medical Times* of the 2nd inst., that over 18,000 horses were too ill to work in New York alone. The disorder appears to have originated in Canada, and to have spread over the northern and eastern parts of America. Vast inconvenience and loss have been entailed by the epizootic, which is a form of influenza, and to be treated accordingly. It very rarely kills. It is said that mules and horned cattle have not been attacked.

THE NEW DRUG, THE EUCALYPTUS GLOBULUS.

FEVER of a malarious character continues to prevail in the Mauritius, the extent of its prevalence as well as its severity varying very much with the season—that is to say, increasing in the hot, and diminishing during the cold weather. We understand that the employment of quinine has been in a large measure discontinued in favour of the eucalyptus globulus, which is considered by many who have watched its administration to have proved of real service, and a good substitute for the former very expensive alkaloid. The Mauritius offers, unhappily, a large field for testing the properties of this drug, and we shall await the results of further experience in that island with interest. At present there is only one tree in existence in the Royal Botanical Gardens, but the soil and climate of the Mauritius are very favourable to the growth of the eucalyptus, and a large number of seedlings are thriving. The leaves are sold at sixpence an ounce, and an infusion of these is the popular method of administering the drug.

THE ADULTERATION ACT.

A MEETING of the Association of Medical Officers of Health was held on Saturday, the 16th inst., when the special points raised on this subject in THE LANCET of last week were fully and specially discussed. A considerable difference of opinion appears to exist among the members as to the desirability of uniting sanitary and analytical work, even if every health officer were capable of performing properly the duties of an analyst. The Local Government Board have, during the past three weeks, taken energetic proceedings under the 5th section of the Act; and it is curious to observe how various are the ways in which their circular note has been received by the different boards of health. In several instances the boards have chosen as analyst their health officer; and in one case, it appears, a special, and not a medical, analyst having been appointed, his eligibility was in some sort called in question by the Local Government Board, who have asked for "copies of testimonials" on which the appointment was made. It is evident, however, that at most health boards there is a manifest disposition in this matter to kick against the hints of the central authority, and hence it is specially important that some conjoint scheme should be decided upon speedily by the metropolitan officers of health, or the Act will very soon become worse than a dead letter.

DISINFECTING CHAMBERS.

THE presence of a disinfecting chamber in some of our metropolitan parishes has given rise to no little alarm at one time or another among the parishioners—alarm lest the chamber erected for the purpose of disinfection should in reality become a focus of disease. This question was raised at the Kensington vestry on October 23rd, in consequence of an outbreak of small-pox in a part of the parish contiguous to the disinfecting establishment. Dr. Dudfield, the medical officer of health for Kensington, has paid strict attention to this question, and is enabled authoritatively to allay the fears of the parishioners. Looking to the records of cases during the late small-pox epidemic, he finds that only eleven cases were within a radius of 200 yards of the disinfecting chamber, and in no case was there any ground for suspecting the establishment as the cause of the spread of the disease.

There can be no reason why a disinfecting establishment should prove in any way dangerous, provided care is taken as to the mode of conveying the articles which are to be disinfected. The transference of articles from the infected houses to the disinfecting chamber ought, in all cases, to be undertaken by the parochial authorities, and a suitable conveyance should be provided for the purpose. To allow infected articles to be sent in a haphazard manner must of necessity be fraught with considerable danger.

SAILORS' COSTUME.

NOT only the ships, but the sailors of the future, will shortly be unrecognisable by the uninitiated—at least, if the very sensible protest of a naval surgeon, which appears in the Naval Blue-book, has any effect upon the authorities. The surgeon of the *Bellerophon*, it appears, is inclined to attribute much of the sore-throat which prevailed in that ship to the peculiar dress of the sailor. He says:—

"I have said before, and I am of the same opinion now, that the ridiculous dress which is continued to be used by the sailor, exposing the throat and upper part of the chest, has a good deal to answer for in regard to this disease and the three preceding ones (catarrh, bronchitis, and pneumonia). It is neither elegant, nor useful, nor convenient, and the sooner it is made to give place to a costume more in accordance with the enlightenment of the present time, the better. The dress of soldiers has undergone many changes to meet the enlightenment of the age, while the poor sailor is robed as he was in Benbow's time. Surely we know better what is suitable for a man to wear now than was known then, and no doubt we do, but there is a degree of prejudice to be got over which appears insurmountable. However, it does seem clear to me that the trousers as now worn, tight about the hips, buttocks, and thighs, must be an impediment to a man going aloft, and being so very loose at the ankles, they are always flapping about to his annoyance. The throat and chest being so uncovered must meet with sufficient condemnation in a sanitary point of view, not to say one word of the effeminate nature of the fashion. . . . . The loss of the men's services from this disease was not so very great, but that can be accounted for by the mildness of a Maltese winter."

We venture to hope that the modern introduction of beards into the navy may do something to protect the throats and chests of our naval heroes.

THE CHEMICAL ANALYSIS OF INDIAN WATERS.

WE recently alluded to the fact that Mr. Nicholson, F.C.S., assistant-surgeon of the Royal Artillery at Bangalore, had been breaking a lance with Mr. Macnamara, the chemical examiner to the Government of India. Mr. Macnamara, in the October number of the *Madras Monthly Journal of Medical Science*, has replied, in what appears to us a very temperate as well as effective manner, to Mr. Nicholson's strictures. It is only just to Mr. Macnamara's reputation that we should state thus much. He says he is content that his scheme is in accordance with Fresenius and Sutton; and were it in error in the point in dispute, its usefulness for the analysis of potable waters would be but little impaired. In regard to several other statements Mr. Macnamara publishes extracts from his former reports to show that some of Mr. Nicholson's allegations are founded on misrepresentations.

POLITICS IN MEDICAL SCHOOLS.

WE have lately had occasion to urge that medical men should pay more attention to politics than has hitherto been customary in this country, but we trust we may never see political subjects introduced into our medical schools On the Continent, and especially in France, medical students have pursued politics with an ardour which must have materially interfered with the prosecution of their studies; and we read that at the recent opening of the Paris Medical School, the lecturer on anatomy delivered an

address in which, instead of speaking of nerves and muscles, he dwelt upon the superiority of a Republic to an Empire, and upon the influence of Italy in the liberation of Rome. Surely this is a kind of silliness to which the word "puerility" may with propriety be applied; and we hope the colleagues of M. Charles Robin will supply the antidote to his observations, and will teach the students to become good doctors, as the first step to becoming good citizens.

GRAVE CHARGE AGAINST A PRISON SURGEON.

SOME of the papers have lately given publicity to paragraphs founded on statements, made by a Fenian ex-convict, strongly reflecting on the character for humanity of the resident surgeon of Millbank Prison. Now, from what we know of the administration and working of Government prisons, we have no hesitation whatever in affirming that the allegations advanced by the ex-convict are extremely improbable. In justice to the gentleman whose name is principally concerned, and whose mouth is by the rules of the service closed, and for the satisfaction of the public, a thorough and searching investigation should immediately be made into the circumstances of the alleged maltreatment.

THE TIVERTON INFIRMARY.

THE Committee have given in, but with a bad grace. They have resolved to withdraw the young man, and have advertised, we believe, for a successor, at £100 a year, who, with the one unresigned medical officer, is to constitute the staff of the infirmary, and do the work. We do not stay to criticise the consistency of the Committee, who, as a reason for not electing a qualified man at the late election, alleged the costliness of such a course. They could not then afford £80. Now they can afford £100. But we must be allowed to say that their present step is completely inadequate to the occasion. An infirmary is not a private practice, that can be conducted by one man and his qualified assistant. It cannot be expected that in any emergency the ex-officers will assist, unless the subscribers interpose and demand an adjustment of the differences between the Committee and the dissatisfied medical men. The subscribers will fail in courage and in their duty if they do not insist upon this, and the institution will lose its public character.

VOICE OF FISHES.

AT the last meeting of the Académie des Sciences, M. Charles Robin read a report on the investigations of M. Dufossé relating to the production of voice in certain fishes. The swimming-bladder appears to be the principal agent in producing voice, at least in those fishes in which that organ has an opening into the œsophagus; and even in those in which it is a shut sac it acts as a sounding-board in augmenting the sound produced by other parts. That it is not exclusively the cause of vocal sounds is shown by the circumstance that some fish are destitute of a swimming-bladder, and are yet capable of producing distinct musical sounds.

THE RATING OF ST. THOMAS'S HOSPITAL.

THE authorities of St. Thomas's Hospital are still expending the funds of the institution in fighting the parish authorities on the question of rating. The liability of hospitals to pay parochial rates has now been over and over again asserted, both in courts of law and in Parliament; and Sir Thomas Hicks and his coadjutors will obtain neither credit nor sympathy by their pertinacity.

THE condition of the Liverpool sewers (more particularly of the Addison-street sewer), about which we had a good deal to say some eighteen months ago, in our report of the sanitary condition of Liverpool, is again occupying considerable attention in the city. The unsavoury topic has been resuscitated in connexion with an inquiry now being made by a committee appointed by the Town Council into the facts of the dispute between Mr. Alderman Bennett and Mr. Deacon, the borough engineer. The inquiry stands adjourned to Monday next.

THE old *Dreadnought* hospital-ship has, in all probability, taken her final departure from the Thames. She was towed down to Chatham by three Admiralty tugs on Monday last, and will either be broken up, or, if found in tolerable condition, may be kept as a hospital-ship for "emergency" duty. The *Dreadnought* will soon be traditional, but she will remain long, not only in the memories of our sailors, but in the recollections of many of our readers, past and present, who have trod her decks pleasantly and profitably.

THE Town Council of Birmingham, it would appear, refuse to follow the example of "profane" Esau, and barter their birthright of independence for a mess of pottage. By the casting-vote of the Mayor, the Council have decided to decline the offer of the Local Government Board to pay one-half of the salaries of the medical officer of health and the inspector of nuisances on condition that those officers were appointed in accordance with the provisions of Section 10 of the Public Health Act.

SCARLET FEVER appears to be very prevalent in Oldham. According to the district registrar's returns, thirty-seven deaths from this disease alone occurred in the week ending the 9th inst. The total mortality from scarlet fever in the borough of Oldham since August 3rd has been no less than 335. The adoption of hygienic and preventive measures seems to be urgently indicated by these figures.

WE are glad to be able to announce that active steps are being at length taken for the institution of "Hospital Sunday" in London. A brief report of a meeting of London hospital authorities, held on Thursday afternoon, will be found in another column, and we heartily wish success to the movement.

WILLIAM T. DOMVILLE, M.D., Deputy Inspector-General of Hospitals and Fleets, has been gazetted Honorary Surgeon to the Queen, in the place of the late Dr. Bernard. Dr. Domville is a graduate of Aberdeen, and has recently been in charge of Malta Hospital.

AMONGST the late items of Indian news we learn that the troops which left Meerut for the cholera camp had returned to cantonment after having been free from cholera for some ten days. Dengue had been very prevalent at this as at so many other stations in India.

AT the anniversary meeting of the Royal Society, which will be held on the 30th inst., our distinguished *confrère*, Dr. Sharpey, who has held the secretaryship for nineteen years, will retire, and will be succeeded in the office by Professor Huxley.

THE office of Chloroformist to the Charing-cross Hospital is, we understand, now vacant. The post is an honorary one, and candidates for it must be duly qualified to practise under the Medical Act.

SIR WM. JENNER is to be the new President of the Pathological Society.

THE Prince Imperial of Germany has been confined to his bed at Carlsruhe with a severe cold. By the latest reports, however, he was progressing favourably. Prince Bismark is now reported to be quite well.

ON Wednesday evening a dinner was given at St. James's Hall to Dr. Gueneau De Mussy, who is about leaving the country. Sir Thomas Watson occupied the chair.

CHOLERA EPIDEMIC OF 1872 IN INDIA.

DR. BRYDEN, statistical officer attached to the Sanitary Commissioner with the Government of India, has just submitted, for the information of the Viceroy and Governor-General of India, a memorandum on the cholera epidemic of 1872. Dr. Bryden remarks that the events which followed in 1869, and the occurrences of 1872, up to the date at which he writes (September, 1872), prove that, on empirical grounds alone, much that is likely to appear over an affected or threatened area may be guessed at weeks or months before the events actually occur. Dr. Bryden includes within the scope of his report, the epidemic history of 1872 generally considered, and the epidemic as affecting the European army of the Bengal Presidency.

The cholera of 1872 in the epidemic area of Hindostan, up to the date at which he writes, may be regarded as geographically distributed in four great bodies. The first is the cholera of the Eastern coast—of Orissa and Ganjan. The second is the cholera of Western India, distributed from Neemuch in the north to the extreme south of the Bombay Presidency, and comprehending the cholera of Malwa, Bhopal, Nimae, the Berars, Khandeish, and the Deccan. The third is the great cholera of the Gangetic Valley, which had its western limits in Shahgehanpore and Etawah, and culminated in the spring in Eastern Oudh and the adjoining districts of the north-western provinces, and has also invaded Sikkim and Nepal. And the fourth is the body of cholera now apparent from Dehra, Seharunpore, Meerut, Agra, and the districts west of Delhi, over Northern India to the frontier, in Cashmere, Flagara, and Kohat, and beyond in Bokhara and the countries adjacent, in which the appearance of cholera had just been reported. The tracts exempted, or comparatively exempted, in 1872 are Central India, the central provinces, tract lying south of the Jumna, and Rohilkhund. It would be impossible to analyse Dr. Bryden's facts and observations so as to compress them within a small compass; it must suffice that he sees in these occurrences of 1872 strong evidence of the correctness of the views that he has advanced regarding cholera in India, and with which our readers are already acquainted. Among the general indications afforded by statistical data quoted by him, he states that the cholera springing up over a large and defined tract north of the Ganges, in what he terms the Eastern division of the epidemic area, after the middle of March, culminated in April and May, and cut off *forty-eight thousand persons*. That this same cholera, confined for March and April to the tract in which it originated, removed westward in May and June up to a definite epidemic limit, the districts invaded being Western Oudh, Futtehgurgh, Cawnpore, Futtehpore, and Etawah. The cholera of the same movement was indicated further to the south by the cases registered in June in Banda, Humeerpore, and Jaloun, and in the western division of the epidemic area, by the appearance of cholera at Agra, Muttra, Bhurtpore, and Jeypore. The tract south of the Jumna remained virtually unoccupied, a geographical immunity which was continued to the south and west of the Central Provinces and into Central India. The tract west of 80° also remained unoccupied. The cholera map of 1872 is almost a precise repetition of the maps of 1866-67. Dr. Bryden holds that the spring cholera of Western India of 1872 was a reproduced and not an invading cholera. The cholera now manifest over Northern India is the cholera of a new invasion, and it can be traced back to its origin within the endemic area. Dr. Bryden holds, in regard to the epidemic cholera of 1872 in its relations to the European army of the Bengal Presidency, that it is as accurately defined in the army statistics as in the experience of the general population; and he says that, speaking broadly, the cholera history of 1872 repeats the history of 1857-58, 1862, and 1867. The interval between the spring cholera and that of the monsoon was clearly defined. Throughout Upper India the monsoon has been abundant, and of a character such as has in former years, as in 1856 and 1861, been associated with the general existence of epidemic cholera. Having followed out the facts of the epidemic of 1872 with his characteristic industry, and reviewed them in relation to the occurrences of previous epidemics, it is only justice to say with skill and subtlety, Dr. Bryden promises to investigate the secondary causes influencing the spread of cholera as soon as the epidemic of this year shall have ceased. The following data are taken from the mortality returns from cholera contained in the Abstract and Proceedings of the Sanitary Commissioners with the Indian Government (May and June, 1872):—

	April.	May.	June.
North-west Provinces ...	12425	10258	—
Punjab	98	1073	993
Oudh	4323	6817	—

In the Bengal Presidency, in the month of January there were 5590 and in February 2825 deaths from cholera.

THE DRUITT TESTIMONIAL FUND.

THE following names have been added to the General Committee:—Sir Henry Holland, Bart., Sir William Jenner, Bart., Drs. Sturges, Graily Hewitt, Tyler Smith, Owen Rees, Radcliffe, Peacock, Basham, John Ogle, Tilbury Fox, Hawksley, Pavy, Kingston, Habershon, Priestley, Murchison, Geo. Johnson, Francis Hawkins, Sidney Ringer, Silver, Andrew Clark, Edward Clapton, Wiblin; Messrs. Arnott, Tomes, Barnard Holt, Erichsen, Sidney Jones, Bellamy, Curling, J. B. Walker, Cartwright, Brodhurst, Maunder, Soelberg Wells, White Cooper, Cæsar Hawkins, William Bowman, Arthur Durham, Edward Cock, Robert Bentley.

Mr. Haynes Walton, the treasurer, begs to acknowledge the receipt of the following subscriptions since Wednesday, the 13th inst.:—

	£	s.
Mr. Noble	21	0
Mrs. Baker	21	0
Mr. Alfred Denison ...	20	0
Master G. Elliott } John Jonasson ... }	20	0
Sir Thomas Watson ...	10	10
Dr. C. J. B. Williams	10	10
Mrs. Noble	10	10
Dr. Priestley	10	10
Mr. C. F. Maunder ...	10	10
Messrs. W. and A. Gilbey, by Mr. J. F. Clark	10	10
Mr. W. K. Riddell ...	10	0
The Lord Chief Baron	5	5
Sir Wm. Fergusson ...	5	5
Mr. Tomes	5	5
Dr. Greenhalgh ...	5	5
Mr. Henry Lee	5	5
Mr. Spencer Wells ...	5	5
Dr. J. W. Begbie (Edin.)	5	5
Dr. W. Woodman Webb	5	5
Mr. Savory	5	5
Mr. Adams	5	5
Dr. Pavy	5	5
Dr. James Wakley ...	5	5
Mr. John Simon ...	5	5
Mr. Sanders	5	0
Mr. Erichsen	3	3
Mr. Chr. Heath ...	3	3
Dr. John Ogle	3	3
Dr. John Wiblin ...	2	2
Dr. Fuller	2	2
Dr. Walter Fergus ...	2	2
Dr. Walsh	2	2
Dr. Ed. Clapton ...	2	2
Prof. Bentley	2	2
Mr. Arthur Durham	2	2
Mr. J. F. Clark	2	2
Mr. Thomas Lynch ...	2	0
Mr. Norman Wilkinson	1	1
Dr. Hunt	1	1
Dr. Harley	1	1
Dr. Graily Hewitt ...	1	1
Dr. Kingston	1	1
Mr. Sydney Ringer ...	1	1
Dr. Habershon	1	1
Mr. Stone	1	1
Mr. James Jago ...	1	1
Mr. John Chatto ...	1	1
Mr. Hinton	1	1
Mr. W. Cooper	1	1
Mr. Edward Cock ...	1	1
Mr. J. B. Walker ...	1	1

Subscriptions may be sent to the treasurer, Mr. H. Walton, 1, Brook-street; the secretary, Mr. A. Norton, 6, Wimpole-street; or may be placed to the account of the Druitt Testimonial Fund, Union Bank, Argyll-street, Regent-street. Subscriptions will be acknowledged weekly in one or more of the medical papers.

HOSPITAL SUNDAY FOR LONDON.

A MEETING of Treasurers of the London hospitals was held on Thursday afternoon, at the London Tavern, Bishopsgate-street, for the purpose of concerting measures for establishing a Metropolitan Hospital Sunday. About twenty-five hospitals were represented on the occasion, and letters were read from many others in support of the present movement. R. B. Martin, Esq., treasurer of St. Mark's Hospital, was called to the chair, and the secretary of that institution, Mr. W. H. Ramsay, handed in a large amount of information collected by him from those towns which have a Hospital Sunday, all tending to show that it has proved uniformly and unequivocally successful wherever it has been adopted. The Chairman said the Bishop of London had expressed his willingness to call a meeting of Rural Deans, and put the matter before them in the most favourable way he could. The Bishop strongly recommended that the funds collected should be applied to those hospitals only which have in-patients, and not extended to dispensaries. A letter was also read from Archbishop Manning, in which he states that he will be most happy to co-operate in any plan which may be found practicable for increasing the support given to our London hospitals. If a general collection be decided upon, he would be happy to unite in it.

The object of the meeting was entirely preliminary in its character; and, by way of laying the ground for future action, it was proposed by Mr. E. H. Currie, Chairman of the London Hospital, and unanimously carried, "That it is desirable that the principle of Hospital Sunday be adopted in London." It was then decided to appoint a committee for the purpose of taking the necessary steps for organising the movement in London, and ten representatives of hospitals present were elected, with power to add to their number. Mr. Ramsay, of St. Mark's Hospital, was requested to act as secretary *ad interim*, and a meeting of the committee was fixed for Wednesday next, at one o'clock, to be held at the London Tavern, Bishopsgate-street, as before.

FOREIGN INTELLIGENCE.

IT is reported that the autobiography of the celebrated De Lorme, first physician to Marie de Médicis, has just been discovered in a château which formerly belonged to De Lorne, and which is now in the possession of the Comte de Coiffier. The memoirs are said to be full of historical souvenirs and curious revelations touching the events of his time.

The French Faculty of Medicine of Strasburg has been definitively transferred to Nancy, under the direction of Professor Stolz, the former Dean of the Strasburg Faculty. The other Professors have been generally taken from Strasburg or chosen from the medical body of Nancy, where a preparatory school previously existed. The chief among them are: Morel (General Anatomy), Bannis (Physiology), Feltz (Morbid Anatomy), Hecht (General Pathology), Bach (Surgery), Hergott (Obstetrics), Michel (Surgical Operations), Coze (Therapeutics), Rameau (Hygiene), Tourdes (Forensic Medicine), Blondiot (Toxicology), Engel (Botany and Natural History). Only one of the former Professors of Strasburg has taken service with a corresponding rank in the new German Faculty.

Latest medical intelligence from Germany and Hungary affords the following details touching the existence of cholera in those countries:—Ofen, from the 1st to 2nd Nov., 47 cases, 13 deaths. Gumbinnen: Cholera has appeared not only at Angustowo, but over the whole frontier line of Poland. Pesth: On the 2nd November 12 cases and 2 deaths.

Baron Larrey has sent in his resignation as member of the Superior Council of Reorganisation of the French Army, and will be replaced by Dr. Cazalas, head inspector of the Army Sanitary Service.

The number of deaths in Paris last week was only 682, a remarkably low figure, almost unprecedented for many previous years. The general sanitary condition of the city is excellent.

The opening lecture at the Paris School of Medicine was delivered by the Dean himself, M. Wurtz, who is also a Professor of Chemistry at the school. The subject was Biological Chemistry. About 500 pupils were in attendance, and warmly applauded the Dean on the conclusion of his lecture.

The hospitals and prisons of Paris are now being visited by various Government authorities, whose object it is to report on their sanitary condition, and introduce any measures of improvement that may be deemed necessary. M. Calmon, Under-Secretary of State, has undertaken to visit personally all the charitable institutions of the department of the Seine, and a few days ago visited the Incurables at Ivry, and the Hospice des Vieillards at Bicêtre. On the other hand, the prisons of Mazas, La Roquette, Sainte-Pélagie, La Conciergerie, &c., are undergoing the inspection of the National Commission of Hygiene.

THE VOLUNTEER MEDICAL SERVICE.

DR. JOHN MURRAY, the honorary secretary of the Volunteer Medical Association, has received the following communication from the War Office with reference to Clause 43 in the new regulations for the auxiliary forces:—

War Office, 19th November, 1872.

SIR,—I am directed by the Secretary of State for War to acknowledge the receipt of your letter of the 29th ult., and to acquaint you in reply that the subject of the allowance for medical attendance on the permanent staff of volunteers is under his consideration, and that further instructions will in due course be issued.

I have the honour to be, Sir, your obedient servant,

P. L. MACDOUGALL,
Major-General.

Dr. John Murray,
Assistant-Surgeon, 19th Middlesex Rifle Volunteer Corps,
42, Harley-street, W.

Correspondence.

"Audi alteram partem."

OFFICERS OF HEALTH AS FOOD ANALYSTS.

To the Editor of THE LANCET.

SIR,—I am glad to find by the report of their proceedings in *The Times* of to-day that the Association of Officers of Health have not endorsed the proposition that the present officers of health should apply for and accept the appointments of food analysts, regardless of the fact of their not being in most cases qualified for such posts by reason of their want of the knowledge necessary for the performance of the duties, and in the face of an Act of Parliament prescribing the requisite qualifications.

It was, indeed, hardly to be expected that so intelligent and honourable a body should publicly identify itself with the proposal in question. Drs. Tripe and Liddle, at the meeting alluded to, expressed a strong opinion that medical officers of health should not increase their already numerous duties by accepting the appointments of analysts, and that many of them did not possess sufficient knowledge of all the various subjects of qualification for analytical duties which the Act required; while, finally, it was resolved that the necessity of carrying out strictly the fifth section of the Act, which provides that the analysts should possess "competent medical, chemical, and microscopical knowledge," should be strongly impressed upon the President of the Local Government Board, the observation being made that "the analysts themselves must *personally* have that

knowledge, and not the persons who, after their appointment, might be selected as their deputies to perform the work." In all this I heartily concur, since it is in exact accordance with the views expressed by me in my first letter to you on the subject.

I rejoice, as I have said, at this result, because it is in accordance with right and reason; and I believe that, if all officers of health not duly and specially qualified according to the Act refuse the appointments of food analysts, then the second proposition made, which I noticed in my first letter—namely, the establishment of two gigantic laboratories north and south of the river Thames,—and which I regard as also very objectionable, will of necessity fall to the ground; because if really independent and competent analysts be appointed, they will not consent to work under the supervision and authority of officers of health, and in laboratories in most cases far away from their own homes, and supported mainly by funds provided by those officers of health.

As already noticed, the Act specifies that those who are appointed analysts must possess "competent medical, chemical, and microscopical knowledge." Now, if this implies that they must hold a medical qualification or diploma, it is needlessly restrictive, for the numbers of medical men who possess the other (chemical and microscopical) qualifications is extremely limited; while, at the same time, this restriction will exclude a number of thoroughly capable analysts, but who are not possessed of a medical diploma.

I desire, in conclusion, to offer a few remarks on the plans or bases of remuneration suggested at the meeting of the Association of Medical Officers of Health already referred to; these were by salary only or allowances only, or partly by salary and partly by allowances.

The payment, either wholly or in part, by either a fixed sum for each analysis performed, or by the small fees derived from purchasers of articles who may have them tested by the analyst, is open to several serious objections. 1. The number of analyses—namely, 250—presumed to be derived from each district in the course of a year, is merely guesswork, and can form no safe basis of calculation. What the actual number will be will depend upon a variety of circumstances, as the nature and extent of the district, the energy and knowledge of the analyst, the vigilance of the inspector, and the degree of support which the analyst meets with from the authority by whom he is appointed. 2. The payment by sample holds out the inducement to increase unnecessarily the number of samples. 3. The number of analyses performed will bear no necessary relation to the real amount of useful work accomplished: thus, a dozen judicious and well-selected analyses may do far more for the suppression of adulteration than a hundred ill-considered and useless analyses. 4. It is impossible to form even an idea of the extent to which the public will avail themselves of the privilege of having analyses made for them by the food analyst, and this item, therefore, as a source of revenue is so uncertain that it cannot be made the basis of any reliable calculation.

The proper and straightforward course, therefore, is to pay the food analyst a fixed salary proportionate to the extent and character of his district, with a separate allowance for chemicals and perishable and breakable apparatus and appliances.

I remain, Sir, your obedient servant,

Nov. 18th, 1872. ARTHUR HILL HASSALL, M.D. Lond.

To the Editor of THE LANCET.

SIR,—It is required under the sixth section of the Amended Adulteration Act that articles suspected to be adulterated are "to be analysed *by the* analysts appointed under the Act." Again, in Section 7 the analysts must report quarterly on articles "analysed *by them*"; and, lastly, in Section 9, an analyst is required to give a certificate which shall be based on the "result of *his analysis*." If words mean anything, no certificate or report based on anyone else's analysis will be receivable, and any prosecution undertaken upon such report must fail. It is therefore tolerably certain that Dr. Hassall's views are correct, and that a candidate for the combined offices of analyst and health officer must be a fair chemist, and possess or fit up a laboratory. It seems utterly impossible that men should be permitted to hold the post of analyst and do the work by deputy. The Act is clearly against such construction, and, consequently, those gentlemen who apply for the office of analyst must be prepared to show they are themselves competent to act, and furnish reports and certificates which are the results not of work done by deputy but of their own analyses.

I am, Sir, yours, &c.,

A CANDIDATE FOR BOTH OFFICERSHIP OF HEALTH

Oct. 13th, 1872. AND ANALYST.

ON THE USE OF NITROUS OXIDE.

To the Editor of THE LANCET.

SIR,—In last week's number of THE LANCET you did me the honour of quoting an extract from a paper "On some Phenomena of Anæsthesia by Protoxide of Nitrogen," written by me in January, 1869, when the administration of the gas in this country was but in its infancy, it having only been in use since the previous March. May I beg for space in your valuable journal to make some further remarks upon its properties, and to correct the view I then took of it, which experience has led me to believe to be in some respects erroneous?

During the last three years I have not met with a single instance in which erotic symptoms have occurred, the number and variety of habits of the patients having been too numerous to attribute this to mere chance.

Undoubtedly nitrous oxide requires more skill in its administration than chloroform, in order that complete anæsthesia may be produced and retained in its integrity; this is only to be acquired by constant practice, which leads me to believe that the sensual emotions described in the extract would not have occurred had the use of the anæsthetic been sufficiently pushed at the proper time.

Some have attributed these symptoms to the admixture of air, but I have frequently shown, by alternately administering air and nitrous oxide, that the air simply prevents complete insensibility, the patient appearing unconscious, but waking up immediately that he is put to pain.

The following results, relating to experiments with the gas, may be interesting to your readers:—It was compressed by Faraday at a low temperature into a clear mobile liquid of slight refractive power, the freezing point being 125° below zero in the Fahrenheit scale, while mercury freezes at −40° Fahr., so that if a jet of this liquid is thrown on to mercury, the latter is at once frozen into a solid mass.

It is rather a curious fact that the lowest known temperature that can be produced takes place on the mixture of two anæsthetics, namely—bisulphide of carbon and liquid nitrous oxide; at this temperature, which is 220° below zero Fahr., alcohol becomes so viscid that the vessel containing it may be inverted without any of the alcohol falling to the ground.

Apologising for the length of this note, believe me, faithfully yours,

Maddox-street, W., Nov. 1872. F. WOODHOUSE BRAINE.

PRELIMINARY SCIENCE.

To the Editor of THE LANCET.

SIR,—As the controversy between Mr. Heath and the examiners of the London University seems to me to be of the utmost importance to medical science, not only of the present day but also of the future, I trust you will allow one who is himself a student of medicine to address to you a few remarks on the subject. I believe I am right in saying that the complaints which Mr. Heath and those who are of his way of thinking bring against the University are threefold. First, that their examination has a tendency to promote the pernicious practice of "cramming" among those who are candidates for their degrees; secondly, that the stiffness of the examination prevents many men, who may hereafter take a high rank among medical practitioners, from ever standing for the London University degree at all; and thirdly, that such kind of knowledge as is exacted from the candidates is not requisite or desirable for a medical man to possess.

With your permission, Sir, I will comment upon these grievances in the inverse order.

Medical science (I do not speak of medical practice) is, compared with almost every other branch of knowledge, still in its infancy, and yet is by far the most important to mankind; it is also the most complex, carrying every branch of science with it, and demanding for its proper investigation the closest application and the widest knowledge. This being the case, it is easy to see that, in order to approach the subject with any chance of success, all superficial learning must be rejected, and nothing but thoroughness in every detail allowed even by the most intellectual among us.

The relations of the chemical, electrical, thermal, and mechanical forces are nowhere of more importance, nowhere more abstruse, than when they appear in connexion with the phenomena of vitality; and if we are content to study them only in their more complicated relations, and to know little or nothing of their elementary principles, we shall be even more foolish than a man who would learn mathematics by beginning at the integral calculus, while he is ignorant how to solve a simple equation.

The Universities, at any rate, have a perfect right to insist that those who wish to hold their degrees shall commence their studies in a sensible and logical manner, at the beginning, and not in the middle; they, perhaps, too, are laudably desirous that their chief honours should be held by men who are not only distinguished and hardworking at the time of examination as juveniles, but who bid fair to do them and themselves credit in after-life; they may intend that their degrees should mean, not that a man has at a certain period of his life been able to pass a particular examination, but that he has received a proper education, and is in the right path in his search after truth.

The second complaint may here be met by the suggestion that the Universities, and that of London in particular, are anxious that their degrees should be the most valued honours in the intellectual world, and consequently are unwilling to bestow them upon those who are possessed merely of tact, common sense, good eyesight, and manual dexterity.

Lastly, an examination can always be of such a character as to preclude the possibility of "cramming" for it, without necessarily being harder to those who know their work. If, therefore, it is the custom of some men to "cram" for the preliminary examination of the University of London, let us hope the examiners will see to it in future. And with regard to the candidates themselves: a man who wishes to learn everything in the shortest possible time should not ask for a degree; he should be content with a diploma or licence to practise.

If it be asked, "When, therefore, ought a man to begin to prepare himself for his medical work?" the answer will be, "At school."

School is essentially the place for elementary work, and an immense deal may there be done under a good master by an industrious boy. Indeed, it is my firm belief, founded on good experience, that from any of our public schools where science forms a part of the education (and these are yearly increasing), few of the senior boys, if any, would be rejected by the examiners of the London University.

I am, Sir, your obedient servant,

St. Thomas's Hospital. W. T. G.

BIRMINGHAM.

(From our own Correspondent.)

THE Vice-Chancellor has again given the Corporation of Birmingham time to carry out the improvements projected by the Sewage Committee, and no doubt by next Easter, when the further hearing of the complaints of Sir C. Adderley and the other relators will be heard, the nuisance incident to the deposit and removal of sewage will be so far abated that the order for sequestration of the property of the town will not be put in force. The five acres of ground on which the sludge from the subsiding tanks had been deposited, have been cleared, and planted with vegetables. Fresh accumulation is prevented by ploughing the sludge into the ground deeply by means of a steam plough which cuts furrows twenty-six inches deep. The drainage of the farm has been completely effected, and the river embanked, so that in wet seasons like the present it no longer overflows the land. The fouling of the river Tame is remedied to some extent by adding lime in large quantities (ten to fifteen tons daily) to the sewage. The effluent water is thus deodorised and clarified. The adoption of these means, and also the preparations now being made to carry out General Scott's cement-making process, prove that the Corporation have honestly endeavoured to remove the difficulties thrown upon them by the rejection of their Sewage Bill by the House of Commons last session.

The death-rate for the past five weeks of the current quarter has averaged 25·9 per 1000 against 22·9 in the five corresponding weeks of last year. Diseases of the zymotic class are less frequent, but in Oldbury small-pox is again very rife, and a volunteer movement has been initiated to co-operate with the Local Board in giving aid to poor patients who are unable to provide proper medical attendance and nursing for themselves.

Canon Kingsley's excellent advice as to the importance of the systematic teaching of human physiology has led some worthy Birmingham manufacturer to devote £2500 to that object. £2000 is to endow a professorship, and £500 to provide an "annual prize to the most meritorious student attending the class, or to the author of the best essay. The prize and essay competition to alternate either yearly or otherwise, as the Council of the Midland Institute may determine."

Mr. Alfred Baker performed ovariotomy on Oct. 29th on a married woman aged thirty-five. The cyst was unilocular, and contained about two gallons of brown grumous fluid. She had been tapped five months previously. There were but few adhesions, and a long thin pedicle; the latter was transfixed with a needle armed with a double catgut ligature, tied in two parts, and then dropped into the peritoneal cavity. The wound, which was about six inches long, was secured by six deep and six superficial silver sutures. She is now well.

Mr. Lawson Tait's case of gastrotomy for extra-uterine fœtation was a young woman aged twenty-five. It was a first pregnancy, and she arrived at the full time in July last. It was diagnosed as retro-uterine, with a dead child, and operated on Nov. 2nd by a central incision. The fœtus was extracted by the feet, the placenta being left, and the wound only half closed, so that it could be syringed out every eight hours with a solution of sulphate of soda. The patient has never had a bad symptom, and is now convalescent.

At the Queen's Hospital Mr. Gamgee recently performed castration on a man aged sixty-seven for extensive cystic disease of the epididymis and cord. Mr. Jordan's case of removal of the cervix uteri for epithelioma by the écraseur, reported in my last, has since died from hæmorrhage. Mr. Jordan has lately performed perineoraphy successfully, and also amputation of the forearm for epithelioma of the wrist. Whilst performing the latter operation the patient's pulse and breathing suddenly ceased. Dr. Leeson, the house-physician, who was giving chloroform, noticed no preliminary symptoms. The man, who was apparently moribund, was resuscitated by the prompt application of the Silvester method, and by the introduction of ice into the rectum.

The Queen's Hospital Medico-Chirurgical Society, which was started some three years ago for the use of the students and the junior members of the profession, has commenced this session well. There are now ninety-four members, and the meetings are well attended.

At the first regular meeting of the Midland Medical Society, under the presidency of Professor Bassett, Mr. Gamgee exhibited a patient on whom he had performed Syme's amputation, and also a cheap and efficient artificial foot. Mr. Rickards showed some microscopic preparations of colloid disease of the pylorus. Mr. Garner exhibited a scirrhous tumour of the pylorus; and Dr. Leeson showed a specimen of intestinal perforation from a case of typhoid fever, and a chart showing the rapid fall of temperature, with uniformly rapid pulse, on the advent of the fatal complication. Mr. J. Priestley Smith then read an interesting paper entitled "Notes from the Tent-hospitals in the late War."

Mr. John Manley has been appointed medical officer of health for West Bromwich in the place of the late Mr. Kite, whose early death is much deplored.

Birmingham, Nov. 18th, 1872.

GLASGOW.

(From our own Correspondent.)

AT the November meeting of the Medico-Chirurgical Society, Dr. McCall Anderson read an interesting case of thoracic aneurism treated with considerable success by galvano-puncture, which had been tried as a *dernier ressort*. The patient was exhibited at the meeting, and though it was evident that the cure was not complete, the tumour had already been reduced to a fourth of its former size, and Dr. Anderson seemed to be sanguine of ultimate success. It was stated that the application of electrolysis to the treatment of such tumours had been only twice tried in this country, and that in both cases the patients had died.

An amalgamation is about to take place between the Maternity Hospital and the University Lying-in Hospital. As both institutions have some accumulated funds for building purposes, there is every reason to hope their junction will enable the directors to set about the erection of a new building. The out-door department should also be reorganised on a scale commensurate with our necessities in regard to clinical obstetrical instruction.

There has been this session a considerable increase in the entries of medical students at the university. I have not learned whether there has been a similar increase at the extra-mural school, but it is at all events in a flourishing condition. When the opening of the Western Hospital gives additional facilities for clinical instruction, we may expect a still further accession to our roll of students. The resources of Glasgow, as regards the *matériel* for anatomical and clinical instruction, are probably unrivalled.

The *émeute* in our sanitary medical department, to which I formerly referred, has resulted in the appointment of Dr. J. B. Russell, which has given universal satisfaction. He is to divide his whole time between the duties of physician of the Fever Hospital and that of sanitary medical officer. The present chief of the sanitary department, Dr. Gairdner, has been relegated to the post of consulting medical officer. It is to be feared that under the strain of a severe epidemic the new system would break down. The authorities have also agreed to appoint a city analyst, and, in lieu of salary, to supplement largely the very modest fees exigible under the Act.

In regard to this last appointment, it cannot be made too soon, if we may trust an analysis of some thirty specimens of whisky which appeared last month in one of our daily newspapers, somewhat distinguished in the way of creating "sensations." The analysis was made by one of our younger medical men, who found in his whole thirty specimens only two of unsophisticated "mountain dew." The adulterants consisted of methylated spirits, shellac, sulphuric and hydrochloric acids, copper, and other substances whose very names were enough to frighten even the staid citizen from his moderate tipple. But if he was scared it was only for a few days. The Professor of Chemistry in the university wrote to the newspaper expressing a strong doubt whether the analyses had been properly made; pointed out the fact that one of them involved a chemical impossibility, and challenged the analyst to make known his processes. The latter did so, partly quoting great chemical authorities to buttress his position. But his critic pronounced his processes faulty and unreliable under the conditions in which they were applied, and his results consequently worthless. Other local chemists also attacked the unfortunate analyst on other sides, till the latter, goaded beyond endurance, made an offer to meet his opponents in a grand chemical tournament—the one who should analyse most correctly a specially concocted mixture to be declared the victor. This chivalric offer of course put an end to a controversy which, while it lasted, created a good deal of amusement in medical circles.

Glasgow, Nov. 12th, 1872.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen were duly admitted Members of the College on the 14th inst:—

Bower, Reginald, Knowle, near Birmingham.
Bowes, John Ireland, L.S.A., Elham, Canterbury.
Buck, William Edgar, M.B. Cantab., Leicester.
Cornelius, Walter Barnard, Canonbury.
Crookshank, Harry M., L.K.Q.C.P.I., Shepherd's-bush.
Davies, Hugh Walter, Dorset-street, Portman-square.
Dixon, Thomas James, L.S.A., Graaf-Reinet, Central Africa.
Edwards, Alfred, L.S.A., Scilly Islands.
Fisher, John, Little Massingham, Norfolk.
Henderson, William, M.D. Ed., Exeter.
Horner, Arthur Claypon, Everton, Beds.
James, Arthur Culver, L.S.A., Kennington-park-road.
Marlott, Charles William, M.B. Toronto, Ontario, Canada.
Penny, George Town, Bridgefield, Lancashire.
Randall, Wyndham, Bridgend, Glamorgan.
Scobell, Henry, Plympton St. Mary, Devon.
Spencer, Edward Richard, L.R.C.P.Ed., Keystone, Hunts.
Underwood, Thomas F. K., Gower-street.
Wagstaff, Thomas Henry, L.S.A., Ilchester, Somerset.
Warden, Charles J. H., Bayswater.
Watson, Charles R., Sydney, New South Wales.
Whitfield, William J. C., Bristol.
Young, John, Narborough, Leicestershire.

Of the eighty candidates examined on the 12th, 13th, and 14th inst., thirteen failed to satisfy the Court of Examiners, and were referred for a period of six months to further professional study.

The following gentlemen passed the first part of the Professional Examination for the Fellowship of the College on the 19th inst.:—

T. S. Veale, B. T. Lowne, J. O. Adams, F. B. Jessett, H. S. Howell, P. H. Benson, and James Shuter, St. Bartholomew's Hospital; Henry Morris and Andrew Dodson, Guy's Hospital; W. E. Cant, W. H. Bennett, and E. C. Stirling, St. George's Hospital; T. K. Rogers and S. G. Betty, University College; James R. Harmar, Birmingham; J. W. Greenwood, St. Thomas's Hospital.

Eight candidates failed to satisfy the Court of Examiners, and were referred to their anatomical and physiological studies for six months.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Nov. 14th:—

Bailey, John Andrew, Bushey, Herts.
Bruce, James, Kidsgrove, Stafford.
Godding, Charles Cane, Portsmouth.
Hirons, George Merriman, Alvechurch, Worcester.

[In the list of gentlemen who passed the examination at the Hall on the 7th inst., published in our last impression, the name "Cornfield, Thomas," was printed in error for "Comfield, Thomas."]

COLLEGE OF PHYSICIANS, IRELAND.—At examinations held on Nov. 11th, 12th, and 13th, the following gentlemen obtained the licences in Medicine and Midwifery:—

MEDICINE.—Benjamin Armstrong, Patrick Butler, David John Carleton, Joseph Keane Healy, Charles Alex. Johnstone, Robt. George Loverock, Godfrey Knight Sproule, Robert Sproule.

MIDWIFERY.—Benjamin Armstrong, Joseph Keane Healy, Charles Alex. Johnstone, Frederic Peard MacLaughlin, Edward Peele, James Sheehy, Godfrey Knight Sproule.

ROYAL COLLEGE OF SURGEONS OF IRELAND.—At the quarterly examinations held on Oct. 19th, 21st, 22nd, and 23rd, the following gentlemen obtained the licence to practise Surgery:—

James H. Callery, David B. Bookey, Patrick C. Devany, Geo. H. Dundas, Edward W. Luther, Charles M'Clintock, James M'Cloghry, Robert C. Mullins, Samuel B. Shekelton, Charles C. Smith, Henry Suffield.

THE mortality in London last week was at the rate of 19 per 1000.

THE salaries of all the medical officers of the Athlone Union have been increased from £100 to £120 per annum.

MR. GRAVES, of Pall Mall, has presented to St. Thomas's Hospital a number of choice framed engravings, from paintings by our best modern masters—Millais, Landseer, Faed, &c.

SPORT AND CHARITY.—The Prince of Wales has again sent from Sandringham twenty brace of pheasants for the patients of St. Bartholomew's Hospital, of which institution His Royal Highness is president; also twenty brace to Charing-cross Hospital.

MR. HENRY HANCOCK has been appointed Treasurer of the Royal Medical Benevolent College.

GRATUITIES FOR EFFICIENT VACCINATION.—The following gentlemen have received honoraria from the Local Government Board for the efficiency of the vaccination performed by them in their respective districts:—Mr. Thomas Francis, Brentford Union, £8; Dr. Haddon, Horncastle, and Dr. Thomas Wilson, Alton, Hants, for the third time; Mr. J. P. Lewis, Basingstoke, £9 8s.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The quarterly meeting of the Committee of the Belfast Branch of this society was held on Wednesday, the 6th inst. The chair was occupied by Dr. Drennan, M.D., and amongst the other members present were Dr. Henry S. Ferguson, M.D.; Dr. Wilberforce Arnold, Dr. Whitaker, M.D.; Dr. Filson, M.D., Portaferry; and Dr. Stewart, honorary secretary.

MILITARY UNIFORM.—According to a special general order of His Royal Highness the Duke of Cambridge, dated the 13th inst., on the subject of uniform, medical officers having the relative rank of field officers are to provide themselves with chargers and horse furniture, and to appear mounted when required to attend parades. Medical officers of cavalry regiments in which the officers have dress and undress belts, are to wear their dress belts on full dress parades, when other officers wear gold belts. On other occasions they will wear undress belts. In regiments in which gold belts only are worn by the officers, medical officers are to wear dress belts at all times.

EDINBURGH UNIVERSITY CLUB OF LONDON.—The quarterly dinner of this club was held at St. James's Hall, Regent-street, on Thursday, the 14th inst., at seven o'clock. Dr. Halley, honorary treasurer, occupied the chair. The following gentlemen were nominated:—Dr. J. W. Walker, of Greenwich, and Dr. Hett, of Bayswater. Amongst the members present at the dinner were Dr. Fayrer, C.S.I., of Calcutta; Rev. Dr. Cosmo Gordon; Rev. W. Douglas Veitch; Staff Surgeon-Major Mackinnon, C.B., of Netley; Dr. Harley, F.R.S.; Dr. Withers Moore, of Brighton, &c. It was announced that H.R.H. the Duke of Edinburgh had been pleased to accept the position of one of the twelve honorary members of the club.

CAMBRIDGE PHILOSOPHICAL SOCIETY.—The annual dinner of this Society was held in the hall of St. Peter's College, on Saturday last, under the presidency of Professor Humphry. Several eminent scientific men were present. The medical profession was represented by Sir James Paget, Mr. J. W. Parker, Drs. William Ogle, Wilks, and Boycott, and Professor Rolleston. Sir William Gull was, at the last moment, unable to attend. Sir James Paget returned thanks for the honorary members of the Society. In the course of his remarks he congratulated the University upon the resuscitation of medical study, which, he maintained, could be best acquired at Cambridge and Oxford, as the students would have the advantage of mingling with the best born, the best bred, and the best mannered men of their time.

MEDICAL MICROSCOPICAL SOCIETY.—At the preliminary meeting of the proposed Medical Microscopical Society, held at St. Bartholomew's Hospital, on Friday, November 1st, the chairman, W. Morrant Baker, Esq., F.R.C.S., &c., made a few introductory remarks, and then called upon Mr. J. W. Groves to give his reasons for wishing the formation of such a society, and the objects which he had in view for it when formed. Mr. Groves proceeded to state these briefly, and then read extracts from some of the communications on the subject with which he had been favoured by Drs. Carpenter, Burdon Sanderson, Lionel Beale, Rutherford, Messrs. R. Brudenell Carter, E. Ray Lankester, and others. Then followed a brisk discussion, in which Drs. Lawson, Heywood Smith, Frank Payne, Woodman, Messrs. Jabez Hogg, T. C. White, B. T. Lowne, E. C. Baber, and others took part. It was ultimately decided that the Society should be formed, and a provisional committee, composed of the honorary secretary of the Royal Microscopical Society and the Quikett Microscopical Club, and of representatives from each of the London hospitals was elected.

Medical Appointments.

AIR, A. C., L.R.C.P.L., M.R.C.S.E., has been appointed Registrar to the Evelina Hospital for Sick Children, Southwark-bridge-road, vice R. C. Chicken, M.R.C.S.E., whose appointment has expired.

BLAKE, J. FF., L.S.A.L., has been appointed Resident Obstetric Officer to the Charing-cross Hospital, vice W. M. Atkinson, M.R.C.S.E., whose term of office has expired.

COLBOURNE, L., M.B., has been appointed Resident Medical Officer to the British Hospital, Buenos Ayres.

DE LA MOTTE, F., L.R.C.P.Ed., has been appointed House-Surgeon to the Charing-cross Hospital.

EDWARDS, H. N., L.R.C.P.Ed., M.R.C.S.E., has been appointed a Physician to the Salop Infirmary, Shrewsbury.

GIFFARD, D. W., L.R.C.P., M.R.C.S.E., has been appointed House-Surgeon to the Evelina Hospital for Sick Children, Southwark-bridge-road, vice J. B. Ball, M.B., resigned.

HARRIS, W. J., M.R.C.S.E., has been appointed Medical Visitor of Houses licensed for the reception of Lunatics within the Western Division of the County of Sussex, vice S. W. D. Williams, M.D., L.R.C.P.L., resigned.

HEATH, CHRISTOPHER, F.R.C.S.E., has been elected Hon. Consulting Surgeon to the Holloway and North London Dispensary, vice F. C. Skey, C.B., F.R.C.S.E., deceased.

HUNTER, W., M.B., C.M., has been appointed Parochial Medical Officer and Public Vaccinator for Dailly, Ayrshire, vice Alex. M'Lelland, M.B., L.R.C.S.Ed., resigned.

JAMES, T. J., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Huntington District of the Kington Union, Herefordshire, vice J. Morgans, M.R.C.S.E., resigned.

JEFFERIES, W. R. S., M.B., C.M., Parochial Medical Officer and Vaccinator for Evie and Rendall, has also been appointed to the Parishes of Rousay and Egilshay, Orkney, Scotland.

KNOTT, C., M.R.C.S.E., has been appointed Medical Officer for the Landport District of the Portsea Island Union, vice Gilmour, deceased.

O'GORMAN, R. P., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Surgeon to the Ladies' Medical Charity of Pendleton, vice Ingle, resigned.

ORWIN, A. W., M.R.C.S.E., has been appointed Resident Medical Officer to the Charing-cross Hospital, vice Peter W. De la Motte, L.R.C.P.Ed., appointed Resident Surgical Officer.

PIKE, W. R., M.R.C.S.E., has been appointed Medical Officer for the Southsea District of the Portsea Island Union, vice Johnston, resigned.

PIPPETT, W., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for District No. 5 of the Fulham Union, vice F. H. Alderson, M.R.C.S.E., L.M., resigned.

TOLERTON, W. R., M.D., C.M., has been appointed Resident Surgeon, Apothecary, and Secretary to the South Charitable Infirmary and County Hospital, Cork, vice W. T. Budds, L.R.C.S.I., L.K.Q.C.P.I., resigned.

WALLIS, F., M.R.C.S.E., has been appointed House-Surgeon to the General Infirmary and Dispensary, Doncaster, vice H. J. Branson, M.R.C.P.Ed., M.R.C.S.E., resigned.

WILLMORE, F. W., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Stafford-street District of the Walsall Union, Staffordshire, vice F. P. Palmer, M.R.C.S.E., deceased.

YEOMAN, J., M.D., M.R.C.S.E., has been re-elected Medical Officer for the West District of the Whitby Union, Yorkshire.

[In the announcement in our issue of Nov. 9th of the appointment of Mr. A. W. Barrett as Dental Surgeon to the Metropolitan Free Hospital, that gentleman should have been described as M.R.C.S.E., instead of F.R.C.S.E.]

Births, Marriages, and Deaths.

BIRTHS.

BOSWORTH.—On the 16th inst., at Sutton, Surrey, the wife of J. R. Bosworth, M.R.C.S.E., of a daughter.

CARLESS.—On the 19th inst., at Lansdowne-grove, Devizes, the wife of Edward N. Carless, M.B., of a son.

LEVER.—On the 19th inst., at Kensington-gardens-square, the wife of R. C. Lever, M.B., Assistant-Surgeon 7th Hussars, of a son.

SMITH.—On the 20th inst., the wife of Dr. F. Porter Smith, of Shepton Mallett, of a son.

THOMSON.—On the 18th inst., at Kirton-street, Carluke, the wife of Dr. W. G. Thomson, of a daughter.

WINTERBOTHAM.—On the 18th inst., the wife of W. L. Winterbotham, M.B., of Bridgwater, of a daughter.

MARRIAGES.

FENN—JULIUS.—On the 12th inst., at West Mousey Church, Dr. Edward L. Fenn, to Katharine Pauline, daughter of Frederick G. Julius, M.D.

PALMER—COEY.—On the 12th inst., at St. John's, Carlisle, Ambrose M. Palmer, M.R.C.S.E., to Emily Louisa, daughter of John A. Coey, Esq.

DEATHS.

ALLAN.—On the 15th inst., F. A. Allan, L.R.C.P.Ed., of Newcastle-on-Tyne, aged 32.

ELLIOTT.—On the 13th inst., at North-street, Chichester, R. A. Elliott, M.R.C.S.E., Staff Assistant-Surgeon H.P., late 95th Regiment, aged 40.

ELWES.—On the 13th inst., C. Walter Elwes, M.D., of Lansdowne-place, Brighton, aged 33.

GRIFFITHS.—On the 19th inst., at Apsley Villa, Cheltenham, Griffith H. Griffiths, M.D., aged 49.

MICHELL.—On the 4th inst., W. Michell, M.D., of Plymouth, formerly of Bodmin, aged 73.

RAYNER.—On the 18th inst., at Erleigh, near Reading, F. Mathew Rayner, M.R.C.S.E., Staff Surgeon R.N.

TOOVEY.—On the 10th inst., at Ramsgate, Thos. Fraser Toovey, Esq., late of St. Thomas's Hospital, aged 52. Friends will please accept this intimation.

Medical Diary of the Week.

Monday, Nov. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
MEDICAL SOCIETY OF LONDON.—8 P.M. Dr. Lichtenberg, "On two Cases of Rhinoplastic Operation."—Dr. Broadbent: "A Study of a Case of Heart Disease, probably Malformation."

Tuesday, Nov. 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8½ P.M. Mr. Spencer Wells: "Results of 500 Cases of Ovariotomy."—Mr. Lawson Tait, "On a new form of Trocar for Ovariotomy."

Wednesday, Nov. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Nov. 28.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Nov. 29.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Nov. 30.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

THE LATE PROFESSOR DAREMBERG'S LIBRARY.

WE mentioned in a late number the death of this eminent philologist. By his vast erudition, and a life spent in collecting ancient works and manuscripts bearing on medicine, he formed a library extremely rich in rare books, all controlled by himself, and presenting specimens of the most undoubted authenticity. It is very likely that these literary treasures will be brought to the hammer if no powerful Corporation or the Government step in and purchase the collection. In this wise this valuable library, which is most carefully catalogued, would be kept together, and could be advantageously consulted. These circumstances would be well worth the attention of some learned bodies on this side of the Channel.

Mr. Henry May (Dronfield) is thanked for his communication.

THE POLARISCOPE IN EXAMINING SECTIONS OF CHIMNEY-SWEEPS' CANCER.

To the Editor of THE LANCET.

SIR,—Having occasion during the present week to examine a section of chimney-sweeps' cancer, it occurred to me to employ the polariscope, and upon doing so I was agreeably surprised to find that the "concentric globes" of Mr. Simon polarised beautifully, the effect with No. 1 selenite (Darker's arrangement) being to divide each globe into segments, of which the right and left in opposition exhibited a charming red colour, from which it would appear that Mr. Simon's conjecture in respect of their structure was perfectly correct. On examining the slide without the selenite, many nuclei (one in each of the many nucleated cells) were observed, presenting in the dark field sharply defined brilliant spots of light, of wonderful regularity as to size and shape, resembling in general appearance a starry sky.

I am, Sir, yours truly,
Clifton, Bristol, Nov. 19th, 1872. SAM. SMITH, Surgeon.

A WATCH-CHAIN IN THE BLADDER.

DR. W. HUNT, Surgeon to the Pennsylvania Hospital, relates the following in the *Philadelphia Medical Times* among some of the unusual surgical cases coming within his experience. A youth, indulging we suppose in one of those curious freaks that occasionally characterise boys, tied a string to a galvanised watch-chain, and managed to pass it down his urethra. It slipped into the bladder, the string hanging out of the orifice of the urethra. The string was unfortunately tied to the middle of the chain, which caused the latter to double on itself when traction was made on it, and at last the string broke. A lithotomy operation did not seem to be at all an unlikely procedure at some future time. The boy was, however, directed to drink copiously of fluids, and resist the desire to empty the bladder as long as possible, so that when he did so he did it with a will. The chain, happily for him, presented longitudinally, and was expelled with the first force of a full stream of urine.

Mr. Villanueva had better advertise in some of the India-going papers.

THE REPORTS OF THE MEDICAL SOCIETY OF LONDON.

To the Editor of THE LANCET.

SIR,—Allow me to correct a very important error in your journal of November 9th. In your report of the proceedings of the Medical Society of London, it is there stated "that I brought forward three cases of hæmorrhagic small-pox that I had at first mistaken for cerebro-spinal meningitis." Some of your readers will be surprised that I could have mistaken even one case of hæmorrhagic small-pox for cerebro-spinal meningitis. The first case I related was that of a strong healthy woman, who was at her work thirty hours before I saw her, and died twenty-four hours after my first visit. There was no appearance of small-pox eruption; but she had blood-spots over her body, and intense pain in the back and legs. I brought this case before the Society on the 15th of April last, and some of the members thought it probable that it was a case of hæmorrhagic small-pox, and the circumstance of her daughter having small-pox fourteen days after her death tends now to strengthen the correctness of this opinion. The other two cases were, as I stated at the Society, unmistakable examples of hæmorrhagic small-pox.

Again, the report says "I advocated revaccination of children when small-pox was epidemic." I did not advocate the revaccination of all children; but I said that, judging from the statistics that I adduced in my paper read before the Society last year, and seeing that the mortality from small-pox under fifteen years of age was about three times as great as that over this age, as shown by the Report of the Registrar-General for the year 1870, and other evidence adduced, I came to the conclusion that the directions respecting revaccination given by the College of Physicians and by Mr. Simon had tended greatly to increase the amount of mortality. Mr. Simon, in his circular, Jan. 6th, 1871, when the deaths in London were 117 weekly, speaks briefly of revaccination. In a subsequent circular, Feb. 6th, he recommended that "revaccination should be performed upon all from fifteen to eighteen years of age; in circumstances of special danger everyone over childhood on whom vaccination has not been successfully performed, ought without delay to be revaccinated." The London College of Physicians, in a circular issued Feb. 7th (the day after Mr. Simon's), advises that "all persons above the age of puberty should be revaccinated, and at any age if they have not sufficient characteristic marks." These directions were published in nearly every newspaper in England. Dr. Seaton, in the article in "Reynolds's System of Medicine" on Small-Pox, says: "If small-pox is in a house, those with two or three good marks should not be meddled with; children whose marks are not thoroughly good, or have only a single mark, should be revaccinated. Those past or approaching puberty should be revaccinated when small-pox is in a house."

I think, Sir, that the accusation should not have been published without the reasons I gave for making it. You will agree with me that the question is of vital importance, and cannot be too much ventilated. My rule is, when small-pox is in a house, to vaccinate all, irrespective of marks and age, especially the *children*, as, judging from the statistics I have quoted, *they* are in the greatest danger.

Yours obediently,
Beaufort-street, Chelsea, Nov. 12th, 1872. EDWARDS CRISP.

*** We are not responsible for the inaccuracies complained of by our correspondent; the report was published as received from the Society.—ED. L.

HOMERTON FEVER HOSPITAL.

WE regret that we are unable to do more this week than announce the fact that we have received a copy of the newly published Report of the Medical Superintendent of the Homerton Fever Hospital for 1871-72.

Student must look at his Livy again. Instead of a few lines, Book XXXIX. contains 56 chapters, and some of them hard reading too.

SEQUEL TO REMARKS ON THE USE OF CHLORAL HYDRATE.

To the Editor of THE LANCET.

SIR,—Two years ago I published in THE LANCET my experience and opinion of the value of this medicine in the treatment of incontinence of urine, mentioning the class of cases in which it ought to be employed, adding that I believed with further trial it would supersede belladonna. I have now satisfaction in stating that it has since fulfilled my earlier expectations; that cases where it failed to act proved, on more minute investigation, to be cases in which it should never have been employed, at least should only have been looked upon as an auxiliary. Next to success of a favourite remedy in one's own hands is to hear its efficacy praised by others. It was, therefore, with pleasure I observed in your journal of October 26th Dr. Girolamo Leonardi, of Naples, bear testimony to the use of chloral in incontinence of urine, with the same directions and results which were obtained by myself more than two years ago, with the exception that Dr. Leonardi has obtained benefit from minute doses, one-third of a grain, continued for some nights, as in a case mentioned, aged seven. I much prefer full doses of chloral in this complaint, especially as its continued use is not necessary, and Nature the sooner regains her wonted vigilance.

I remain, Sir, yours truly,
WILLIAM THOMSON, M.D.,
November, 1872. Consulting Surgeon to Peterborough Infirmary.

ACCIDENTAL INSURANCE COMPANY (LIMITED).

A CORRESPONDENT complains that the above Company will not pay him for certificates concerning injuries to his patient, involving much detailed information, and requiring that the certifier be a registered practitioner. Our correspondent's complaint seems quite reasonable, unless the terms of insurance require such certificates to be supplied by the insurer. In any case it will be better to fill up the necessary certificates, and decide the liability afterwards. If the Office does not pay, our correspondent will have a claim on his patient for the certificates.

M.R.C.S. is thanked for his note and enclosure.

THE M.D. OF GIESSEN.

To the Editor of THE LANCET.

SIR,—May I be permitted to occupy a little of your valuable space with my own experience in connexion with the vexed question of the foreign M.D.s, although probably I am only one of many others.

In the first place, I am a registered M.R.C.S.E., L.S.A., and L.M., and was on the point of going up to St. Andrews when my health failed, and I was obliged to settle in the country, and give up reading for a time. Then St. Andrews required residence, and, as I was in actual practice, of course that was out of the question, as what man in practice could leave it for two years? Then I found that I was constantly introduced or spoken to as "doctor," and, not having the right to it, it always grated on my ears; so I was determined to have the right, if not by registration, at least by courtesy, and also to obtain it by a fair examination; and as that was not attainable in England, I read up for a twelvemonth, and then presented myself at Giessen. When I arrived there I produced my diplomas, but was told they did not recognise them, although it was very creditable to possess them; but all they required was the schedule of hospital attendance, and proper certificates of having duly attended my hospital studies, which I produced. Then on the day appointed I went to the University, and found eight professors and their president, and was examined by them in turn. When I returned to my hotel I put down the heads of the subjects, as many as I could recollect, and they were—

Anatomy.—Heart, lungs, and circulation; pelvis; bladder, &c.

Microscopical Anatomy.—Muscle; blood, and composition of.

Surgery.—Bladder, causes of hypertrophy of, &c.; prostate, diseases and treatment of; stomach, cancer of; stricture, various forms and treatment of.

Pathology.—Heart, diseases of, and post-mortem diagnosis; liver.

Physiology.—The pneumogastric nerve, its distribution, and effect on the stomach and small intestines.

Materia Medica.—Veratrium, arsenic, plumbum.

Medicine.—Anæmia, chlorosis, cirrhosis, &c.

Chemistry.—Poisons and tests.

So that I am by right in Germany, and at least by courtesy in England, entitled to be styled "doctor." Now, I cannot understand why a diploma fairly obtained in this way cannot be registered. I know it caused me a considerable amount of labour reading up for, and have no doubt that before long *bond-fide* diplomas, wherever obtained, will be legally recognised as we become less insular in our ideas.

I am, Sir, your obedient servant,

November, 1872. A M.D. OF GIESSEN.

*** The great test of an examination is the proportion of successful and unsuccessful candidates. Eight professors are no guarantee of severity.—ED. L.

Mr. T. E. Hayward should purchase the London University Calendar for 1872, where he will find all particulars respecting the Prel. Sci. Exam. for Chemistry under the head of B. Sc. Exam., pp. 85—87. We strongly recommend him to take out a practical course. He will almost certainly fail otherwise. Roscoe is the best book for the purpose.

THE papers of *Dr. Charteris* and *Mr. Charles Smith* shall receive attention.

THE INCOME-TAX.

To the Editor of THE LANCET.

SIR,—How are we protected against *exorbitant assessments for income-tax?* This is a question of importance to all professional men. It seems that the only protection we have is the power of appeal to the Income-tax Commissioners. In other words, a professional man must submit to pay more than his due proportion of taxes, or must appear before a Committee of his neighbours (and possibly his patients and clients), and confess to a certain amount of *professional failure.* This has been my recent painful experience of an appeal for reduction of the amount of assessment, and I have no doubt that hundreds of professional men prefer paying more than they are legally bound to do rather than submit their affairs to this kind of scrutiny by their neighbours. It seems likely that this injustice will be perpetuated as long as the assessors or their subordinate officers are allowed a percentage on the amount assessed. When will professional men make a stand against such an anomalous state of affairs?

I am, Sir, yours obediently,

November, 1872. A VICTIM, BUT ONE OF THOUSANDS.

Inquirer.—The white globules were, if we remember aright, first distinguished from the red globules by Hewson. Cohnheim promulgated his views as to the migrating properties of the white corpuscles, and their connexion with inflammation in 1867.

A Sewage Utilisation Advocate shall have a reply in our next number.

GRATUITOUS CERTIFICATES.

To the Editor of THE LANCET.

SIR,—I am frequently requested by Club men, who are employed either at the Post-office or on the railway, to write sick certificates for either the one or the other respectively, in addition to the ordinary Club certificate. Not being retained by either the railway or Post-office, I am unable to see why I should write gratuitous certificates for their satisfaction. It may not be much to do, but it is an annoying hindrance when one is busy, besides being wrong in principle. It seems to me a legitimate grievance, and one that would be all the better for a little airing.—Yours truly,

Kingston-on-Thames, November, 1872. E. M. SHIRTLIFF.

UNQUALIFIED ASSISTANTS.

Junior A. complains that a firm in the town in which he resides devolves all sorts of responsibilities and duties on an unqualified assistant, allowing him to attend midwifery cases at a reduced fee without ever going near the patients themselves, to do vaccinations, and attend pauper patients. The profession has often a right to complain of the use made by qualified practitioners of unqualified assistants; but there is no legal redress for the grievance.

Mr. John Clay's paper on "Insufflation of the Uterus with Medicated Powdered Charcoal" shall appear in our next issue.

HUCKNALL TORKARD.

To the Editor of THE LANCET.

SIR,—In the village church of this ill-favoured and fever-stricken parish lie the mortal remains of Lord Byron. Why a more fitting resting-place has not been found for the immortal poet I cannot divine; dark and dank, yet thousands have visited his shrine from distant lands, the fairest, the noblest, and the most wise.

Hucknall, when I was medical officer to the Basford Union, formed one of eight parishes, extending from Newstead Abbey to the Erewash Valley, a rather extensive district, being fourteen miles from end to end, necessitating the keep of two horses. The salary was £37 per annum; the population 8000. I was very strict in those days, and perpetually drove the pigs and the refuse out of the town, and I cannot see why it cannot be done now. But in attacking abuses the unfortunate doctor is sure to suffer in purse and position; the man attacked for allowing bad tenements or cesspools invariably becomes a bitter local enemy.

Hucknall Torkard can be washed as clean as a new pin in a very few days. It has abundance of water gushing from the limestone formations, and at the foot of the village you have the Bulwell spring, so pure that it is used for the most delicate bleaching processes; besides there are coal-owners and large landed proprietors in the vicinity able to assist pecuniarily any sanitary movement.

I have written in your columns and in *The Times* some letters against the administration of the Poor Law, and have endeavoured to show how to stamp out disease by a more liberal treatment of the poor in sickness. My exertions have always been repaid by unfair treatment, as in the St. Saviour's Union, where after ten years they quietly shunt me with a pension of £19 per annum.

Yours faithfully,

ALFRED ELLSWORTH, F.R.C.S.

Trinity-street, Trinity-square, Nov. 5th, 1872.

H. R.—The reports in question are confidential, and not intended for general circulation. It was considered by the Minister for War that the reports made by officers accredited to foreign Governments ought not to be published, for several reasons.

THE communication of *Dr. Baylis* shall be kept in view.

ULCER OF THE RECTUM AND DIARRHŒA.

To the Editor of THE LANCET.

SIR,—Can you or any of your readers inform me if ulcer of the rectum is often associated with diarrhœa? I have not been able to see this point alluded to in the books that I have consulted on the subject.

Yours faithfully,

November 18th, 1872. MEDICUS.

Mr. J. Copland, (Poplar.)—We do not forward private answers. The term alluded to certainly does not imply the existence of ulceration, nor has it anything necessarily to do with it.

THE letter of *Victim* will be replied to in our next.

Associate King's College.—The colourless oil of tar is the redistilled oil.

A NEW PLAN OF TREATING FRACTURE OF THE NECK OF THE THIGH-BONE.

To the Editor of THE LANCET.

SIR,—The pain caused by the means usually adopted in order to obviate the eversion and shortening consequent on this accident may be in a great measure avoided by turning the patient on the affected side, and placing the limb in the semi-flexed position, sometimes had recourse to in the treatment of fracture of the leg; in other words, by easily making the position of the body conform to the altered position of the limb, instead of forcibly bringing the limb into its normal relation with the body. This method was recently adopted in the case of an old lady, upwards of seventy years of age, with comfort to her and satisfaction to myself. The hip becoming a little sore, of her own accord she put two or three handfuls of flour under it into the bed; this enabled her to lie more comfortably, and in the course of a few days the muscles concerned, not having been irritated by officious surgery, quietly acquiesced in the patient being placed on her back, the knees and feet being tied together, and a pillow having been placed under the knees. An excellent recovery ensued.

I am, Sir, yours obediently,

Clapton, E., Nov. 7th, 1872. D. DE BERDT HOVELL.

C. H.—The Queen Charlotte Lying-in Hospital, Marylebone-road, N.W. All information may be obtained from the matron. General nurses are trained at the Nightingale Institution, St. Thomas's Hospital; at the All Saints' Home, Margaret-street, W.; and at St. John's House, Norfolk-street, Strand.

HYDROPHOBIA IN CHILDREN.

To the Editor of THE LANCET.

SIR,—In your journal of Nov. 9th, Dr. Thomas Livingstone, writing about hydrophobia in children, says: "With your permission I ask Mr. Ellis to read my paper once more, and I desire to inform him that I still hold to my opinion, and that *exceptions prove the rule.*" Between Mr. Ellis and Dr. Livingstone in their points of difference the profession must judge and time decide. It may, however, alleviate Dr. Livingstone's fit of assurance to be reminded that no exception ever yet *proved* a rule, but only the *existence* of one.

Your obedient servant,

November, 1872. M.D.

*** Here this correspondence must terminate.—ED. L.

"CALLAO PAINTER."

WE always thought Callao was a sort of paradise, where it never rained, and where the temperature was never too high nor too low. It appears, however, to have its drawbacks, if we may judge from the following report of a naval medical officer of the *Ringdove*, Assistant-Surgeon Alfred Bread:—

"Febricula, or what I have so designated, was prevalent on board, and it is, it appears, a disease common on shore. It is a complaint worthy of observation, having its peculiarities, and being, according to all accounts, rather characteristic of the place (Callao). It occurs at all seasons of the year, but, it is said, most frequently when the sun is just overhead, on its way up north. The weather here, for a place in the tropics, is never very hot, on account of the grey sky, the current from the south, and the mild southerly breezes almost always blowing. What goes under the name of the 'Callao Painter,' from blacking the white paint of our boats, is attributed by a surgeon of repute in the town principally to bad drainage, and the practice they have here of emptying carts, full of human excrement, on the beach, there being no tide to carry it off; and this probably is the principal cause, although others say it is due to the decomposition of innumerable small fish lying dead on the beach; and others, again, to volcanic action underneath the water, generating sulphuretted hydrogen, and which kills the fish periodically. Whatever the 'Painter' is due to, it hangs about the atmosphere here, which is commonly foggy, besides polluting the water. Depression of the nervous system, with a gradual diminution of red particles in the blood, characterises most diseases here, and is even apparent in persons considered to be in good health. The symptoms of this fever are, briefly, heat of skin and pulse at 90, for a day or so, followed by brown tongue, perspiration, and depression."

Dr. W. H. Robertson, (Buxton.)—The newspaper referred to has been mislaid. Perhaps our correspondent will forward another copy.

Dr. Pratt is thanked for his communication.

ARTIFICIAL LEGS.

To the Editor of THE LANCET.

SIR,—I read your report in last week's issue of the meeting of the Medical Society of London; and as one of the few actual constructors of artificial limbs in this country, I am, naturally I think, exercised by the introduction of another American leg.

Upon the merits of the new leg I can offer no opinion, not having seen it. I should like to much; but I do feel anxious that the profession and the public generally should not think that the advantages mentioned as appertaining to this new leg are advantages that we do not already possess in this country.

We have a leather leg. I had the privilege, through the kindness of Mr. Lane, of exhibiting a boy walking in one before the students in the theatre of St. Mary's Hospital, Paddington, more than two years ago. Its cost to a verified poor patient was £8.

As to the fitting of children, I think that we invariably use leather, owing to its thinness, but not to its lightness, because I contend that I can make a leg that is to last for ten or fifteen years much lighter in wood than in leather.

With respect to the conversation that ensued, I would only remark that about 3 lb. weight, or rather more, is not at all a new attainment in artificial legs above knee for ladies; neither have I in the fitting of many hundreds of stumps with different sorts of appliances ever been guilty of injuring a stump by the excessive weight of the leg.

In conclusion, I will say that I should like to show Mr. Davy legs that have been worn ten and fifteen years, of our make, which he would readily acknowledge are not very dirty, and I assure you that my patients would give me but little rest if their legs were not noiseless.

I remain, Sir, your obedient servant,
Bolsover-street, Nov. 21st, 1872. H. J. STUMP.

Arcus.—An abstract of the case could be inserted in our "Mirror"; or, if our correspondent preferred it, he might forward the particulars, set forth as shortly as practicable, in the form of a letter.

WE should feel obliged to our correspondents by their affixing a professional title to their communications.

FOREIGN BODIES IN THE STOMACH OF A LUNATIC.

To the Editor of THE LANCET.

SIR,—Observing in your impression of the 26th ult. an account of a curious collection found in the stomach of a lunatic in Victoria, I will supplement it, if you think it worthy of record, with another nearly, if not quite, as remarkable.

On making a post-mortem examination of a lunatic some months ago, when assistant medical officer to an asylum, I found in the stomach the following articles:—44 pieces of shirt, 41 pieces of pocket-handkerchief, 10 pieces of caps, 8 pieces of braces, 7 pieces of chamber-pot handle, 6 pieces of stick, 5 pieces of leather, 4 pieces of coal, 3 pieces of stocking, 2 pieces of rag, 1 piece of tobacco-pipe, 1 bit of iron, 4 pebbles, 1 knitted cuff, 1 acorn,—the whole mass on removal weighing over 8 lb. Yours truly,
Leicester, Nov. 7th, 1872. A. H. B.

W. A. had better apply to the Colonial Office. The pay differs, we believe, at different stations.

A Third-year's Student.—The degree is not a medical one, and it does not come within our province to notice the subject.

TREATMENT OF A CASE OF INFANTILE PARALYSIS.

To the Editor of THE LANCET.

SIR,—Would you kindly insert the following, so that I might have the benefit of the suggestions of some of your numerous readers.

I have under my care a child about a year and a half old, suffering from paralysis of the right leg. Went to bed as usual in good health, and awoke the next morning with the leg paralysed. Three months ago came under my charge. I have tried strychnine and iron, friction, galvanism—in fact, all the usual remedies prescribed in infantile paralysis, without benefit. Would the hypodermic injection of strychnine be of benefit after three months? I have seen some cases which have ended in a sort of talipes equinus, and made a useful leg. Is this usual?—Yours faithfully,
Congleton, November, 1872. J. T. W. BAIRD, M.B., C.M., &c.

Mr. A. Wilson.—The Local Government Board has not up to the present laid down any principle to guide Local Boards as to what would be a fair equivalent for the services of a medical officer of health, and most likely they will not. We consider that our correspondent may suggest £150 for health officer, and £50 for sanitary inspector, or £200 if combined; but we doubt whether such an amount will be valid. Every sanitary authority will have to appoint a health officer, and this in rural districts may be for each Poor-law district, the whole union, or for a combination of unions.

UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—In the Science syllabus of the London University it is stated that the subjects of the First B.Sc. and Preliminary Scientific under the head of Mechanical Philosophy "are to be treated independently of mathematical symbols, or only by simple geometrical methods."

Reference to past examination papers cause a doubt as to whether this may not be dangerously delusive. Several tutors to whom I have spoken on the subject declare it to be absolutely necessary to study mathematical works on Mechanics, Hydrostatics, and Optics, such as Todhunter's Mechanics for Beginners, and treatises in Galbraith and Haughton's series. Anyone who refers to the former will recognise that the considerable amount of mathematical toil necessitated entirely belies the statement quoted from the syllabus.

Whatever the Senate of the University may ultimately determine with regard to the Preliminary Scientific, they would do a just and considerate act in issuing without delay a notification upon the point to which I have referred, to the end that needless, and in some cases hopeless, labour may be spared to those who wish to present themselves at the next examination.

I am, Sir, yours obediently,
November 6th, 1872. A STUDENT.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson; Mr. Haynes Walton; Dr. Morgan; Mr. Lawson Tait, Birmingham; Dr. de la Motte; Mr. Newton; Dr. Macleod, Otley; Mr. F. H. Villanueva; Mr. Henckey, Belfast; Mr. Ayers, Leamington; Dr. Williams, Targarth; Dr. W. S. Saunders; Mr. Moreton; Mr. Towers, Hertford; Mr. Reynolds, Horton; Mr. Handford, Boston; Mr. Sidney; Dr. Corfield; Dr. Martin; Dr. Bramwell, North Shields; Dr. Smith, Shepton Mallet; Mr. Gurney, Leominster; Mr. Porter; Mr. Ramsay; Mr. Miller; Mr. Smith, Halifax; Mr. Polson; Mr. Gregory; Mr. Jefferies, Evie; Mr. Perry; Dr. Dwerty, Carlisle; Dr. Phillips; Mr. G. Croxton; Dr. G. Barnes, Hammersmith; Mr. Roberson, Eton; Mr. May, Dronfield; Mr. Broome; Mr. J. Copland, Poplar; Dr. Sceffern; Mr. Thomson, Dublin; Mr. James; Dr. Mitchell, Southwaite; Dr. Pratt, Appledore; Mr. P. le Neve Foster; Mr. Redman; Dr. Rattrery, Dartmouth; Mr. Lowndes, Liverpool; Dr. Jones, Aberavon; Mr. Buchanan, Carlisle; Mr. Watkins, Wakefield; Dr. Carless, Devizes; Dr. Dudfield, Kensington; Mr. Caulfield; Mr. Burke; Dr. Irving, Edinburgh; Mr. Holman, Ashford; Mr. Wilson, Bristol; Mr. Smith, Clifton; Dr. Baylis, Birkenhead; Mr. Marks, Lowestoft; Mr. Hosking; Mr. Price, Rochford; Mr. C. Shattock; Mr. Weston, Binfield; Mr. Garfield, Rotherham; Mr. Kendrick; Mr. Kirton, Bedford; Mr. Whiteman, Huddersfield; Mr. Fenwick; Dr. Thompson, Leamington; Mr. Chapman, Uppingham; Dr. Bellis, Wootton; Mr. Goode; Mr. Hotchkin; Mr. P. Walton; Mr. Rorie, Portsmouth; Mr. Burman, Southsea; Mr. Chambers, Chorley; Mr. Jebb; Mr. Lawson; Mr. Cornfield; Dr. Taylor, Penrith; Mr. J. Olding, Halifax; Dr. Mackenzie; Mr. Henry; Mr. Pratt; Messrs. Blake and Orwin; Mr. Macrae, Ripon; Mr. Crerar, Maryport; Mr. Bernard; Mr. Harland; Dr. Downes, Tiverton; Dr. Crisp; Dr. Herbert, St. Helena; Mrs. G. Reid; Mr. Dawson, Birmingham; Mr. Brown; Mr. Hollings; Dr. Winterbotham, Bridgwater; Dr. Lewis, Basingstoke; Dr. Bersini, Milan; Mr. Crombie; Mr. Stump; Sanitas Omnia Sanitas; M.D.; A Parish Officer; A Victim, but one of Thousands; An Associate of King's College; Medecenair Doctor; M.R.C.S.; A Sewage Utilisation Advocate; A. B. M.; W. C. S.; Arcus; An Enemy to Quacks; X.; A would-be State Medical Officer; Reformer; W. A.; A Third-year's Student; &c. &c.

Riply Advertiser, Jamaica Gazette, Midland Counties Herald, Newcastle Daily Chronicle, Falmouth Post, South Pacific Gazette, Dublin Evening Mail, Guy's Hospital Gazette, South London Journal, Whitehaven News, Birmingham Daily Mail, Bulletin de Statistique Municipale (Paris), *Proceedings of the Pathological Society of Philadelphia, Anti-Vaccinator, Local Government Chronicle, Schoolmaster, Kilburn Times, Northern Echo, Journal de Médecine, Liverpool Daily Post, West London Advertiser, Oldham Chronicle*, and *Downpatrick Recorder* have been received.

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